A Brown Pap

The Health of South As in the United States

South Asian Public Health Association (SAPHA)

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(SAPHA)

October 2002

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Introduction

South Asians have origins in seven countries: Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Broader definitions include those from Afghanistan, Burma/Myanmar, and Tibet. Approximately two million people of South Asian origin live in the United States according to year 2000 Census data—a growth rate of 106% over the last ten years. Even though this population increase has created a demand for information, there is limited published literature about South Asian American health issues. Significant increases in population coupled with wide diversity within the South Asian community present a challenge for health care providers to respond to both community and individual needs adequately. Consequently, effective programming and services tailored to this emerging group are hindered. Professionals interested in South Asian health issues began to strategize at national and regional events in the mid-1990s, and conceived the idea to develop a white paper to uncover the specific health needs of this population.

Recognizing the importance of addressing the health and well-being of South Asian communities, a group of public health professionals and students formed the South Asian Public Health Association (SAPHA) in 1998. SAPHA began as an Internet community through an on-line listserv, and today links over 360 professionals and advocates across the US. The enthusiasm from SAPHA's nationwide volunteer base led to the *White Paper* initiative—a review of health research and literature on South Asians in the United States. During development of the publication, the final product was renamed *A Brown Paper: The Health of South Asians in the United States* to better represent the people it discusses.

This groundbreaking compendium evaluates and summarizes existing knowledge about several key health indicators for South Asian Americans. The report consists of 13 chapters: Sociodemographic Profile, Youth Health, Women's Health, Lesbian, Gay, Bisexual, and Transgender Health, Elderly Health, Cancer, Cardiovascular Disease (CVD), Diabetes, HIV/AIDS, Intimate Partner Violence (IPV), Mental Health, Nutrition, and Substance Abuse. Individuals who have contributed to planning and writing the *Brown Paper* chapters include researchers, health care providers, advocates, and activists. Based on research and analyses of each topic, the authors make recommendations for policy-makers, health care providers, and community outreach workers. The recommendations aim to influence allocation of resources that can reduce disparities in the health status of South Asian communities and to designate priorities for future prevention, diagnosis, treatment, education, research, and policy development. A Resource Guide of organizations that provide health-related services to South Asian Americans across the country was also compiled and accompanies the publication.

SAPHA will distribute the *Brown Paper* to policy-makers, health care providers, community health centers and others in the health field. As part of the release, SAPHA will partner with local community organizations, funders, researchers, advocates, and city agencies to highlight the needs of South Asian communities. Local events will provide opportunities for information gathering and professional networking, as well as planning for action and community mobilization around shared priorities.

SAPHA is proud and excited to present the first-ever *Brown Paper on the Health of South Asians in the United States.* For further information about SAPHA and the *Brown Paper*, please visit http://www.sapha.net

Executive Summary

The *Brown Paper* initiative is an entirely volunteer effort led by public health students and professionals. Researchers, health care providers, and community advocates throughout the country were recruited for their expertise and contributions in the field of South Asian public health. An oversight committee was established to implement and manage the project.

A combination of factors determined the final topics that were selected for inclusion in the report, including availability of sufficient material on South Asian communities and interest of qualified and committed authors. The authors of the *Brown Paper* chapters conducted an analysis of qualitative and quantitative information, acquired through literature reviews, regional and national research and key informant interviews with directors and staff from community-based organizations and community leaders. The oversight committee implemented a review process, in which at least two independent expert reviewers were identified to verify the accuracy and inclusion of appropriate information in each section. Authors made revisions as necessary. Data are listed for South Asian populations where available. "Asian Indian" or Asian American and Pacific Islander (AAPI) data are referenced where comprehensive South Asian statistics were not available. Based on the findings, the authors present conclusions and recommendations for each health topic.

The Resource Guide, which includes over 100 resources and agencies that provide services to South Asians in the US, is organized into four categories: 1) *Brown Paper* chapter-specific information; 2) professional groups; 3) health and social service agencies; and 4) information and referral resources. The directory was compiled using resources from the chapter authors, the Asian American Federation of New York database, on-line searches, and the SAPHA Web site.

Data Highlights

The paper uncovers several noteworthy findings as listed below:

South Asian Demographic/Health Profile	
South Asian population in the US (Asian Indian, Pakistani, Bangladeshi, Sri Lankan)	1.89 million people (106% Increase)
National poverty level	Asian Indians ranked 12th
South Asian uninsurance rate	21% (national average: 18%)
Educational level	25% of Asian Indians have limited English proficiency, which means they do not speak English well
Asian Indian elderly	Comprise 10% of Asian Indian population
Youth health	Asian American children are 2-3 times more likely to lack a usual source of health care and continuity of care, when compared with White children
Women's health	Women who have immigrated to the US from India are more likely to deliver low birth weight infants than White women and women in other ethnic groups, though they receive first trimester prenatal care at about the same rate as White women (80% vs.82%)
Leading chronic health concerns	High blood pressure, diabetes, obesity
Primary cause of mortality for Asian Indians	Cardiovascular disease (higher prevalence than other Asians and non-Hispanic Whites)

Recommendations

Common themes throughout the *Brown Paper* lead to four cross-cutting recommendations:

- Reliable data must be collected for South Asians as an entire group in order to better understand their particular health issues. Disaggregated data for South Asian subgroups are also needed to improve understanding of risk factors for particular diseases.

- More research on the health status, needs, and concerns of South Asians must be conducted. National, state, and local agencies should fund additional research efforts.

- Culturally appropriate outreach and education is required, including information on prevention, diagnosis, and treatment of various conditions, as well as on the range of health services available in their communities. Local efforts can be strengthened if administered through community-based organizations that have cultural and linguistic capacity, as well as established relationships with the various South Asian communities.

- The "model minority" myth that continues to envelop AAPI communities, including South Asians, must be eliminated. Serious health concerns are often overlooked due to assumptions and misperceptions, such as economic and academic success among all South Asians living in the US.

Specific recommendations are also highlighted in each section. For example:

- Health care providers working with South Asian populations should raise awareness of diabetes. They should define and explain the disease to patients, and provide information about risk factors and prevention methods.

- Service providers working to end intimate partner violence should collaborate closely with South Asian American communities to determine effective and culturally acceptable methods for conducting research and outreach.

- Researchers and mental health clinicians must distinguish between experiences and mental health needs of first- and second-generation South Asians.

- Community forums should be conducted to raise awareness about substance abuse issues and to discuss risk factors, prevalence, and prevention methods.

- South Asian women need more information about reproductive health and sexuality, with attention to South Asian cultural norms, as women often serve as gatekeepers to health for the entire family.

Conclusion

The *Brown Paper on the Health of South Asians in the United States* is the first such document ever written and widely distributed. It summarizes the current state of South Asian American health, revealing several interesting facts and trends emerging around the health and well-being of the South Asian American population. The report identifies areas in which progress has been made and details disparities that warrant further attention. Increasingly critical to maintaining this community's productive and positive contributions to life in America is greater attention toward enhanced and targeted resources, funding, services, and research.

Tremendous diversity exists within the South Asian community with respect to health seeking behavior and knowledge, socioeconomic status, educational level, cultural traditions, and specific health care needs and issues. Recognizing these differences and developing specific programming will help make the US health care system more accessible and, in turn, lead to a healthier South Asian population in the United States.

Foreword

The American health system is a tremendous success story in providing the best quality and most innovative care in the world. Our nation's researchers are working every day to discover almost unimaginable miracle cures for common and life-threatening diseases. It is because our health care system has been so successful that it is so important that we ensure everyone has access to it and that our health care system is truly responsive to the unique needs of each of us. We must put the patient, working with his or her doctor and other health care professionals, back in control of our nation's health care system.

I applaud the South Asian Public Health Association for recognizing the importance of addressing the health and well-being of South Asians living in the United States. Given the tremendous gaps in currently available data concerning the health status of South Asians, the Association's efforts to publish this *Brown Paper* combined with it's efforts to encourage further research, will help to start filling that information void and also hopefully will inspire others to continue these efforts.

As the Association makes clear, South Asians living in the United States are also affected by and concerned about many health issues in addition to diabetes. It is thus appropriate to examine other challenging and perhaps lesser-known health issues such as mental health and substance abuse. Providing baseline data about the community builds an important foundation for South Asians living in the United States, health care professionals, and policy-makers. Analyzing health across the life span, as well as the various health conditions facing the community, will help inform the ongoing policy discussions on how to make the American health care system even more responsive.

We must address the diversity within the community, and how this relates to health seeking behaviors and overall well-being. We must advocate for the development of policies which will help make the American health care system more accessible and, in turn, lead to a healthier South Asian population in the United States.

Finally, I encourage all public health researchers, policy-makers and community-based organizations to continue these efforts, and to participate in the on-going dialogue on South Asian American health. We must work together to influence future efforts to reduce disparities and to designate priorities for future research, prevention, diagnosis, treatment, education, and policy development.

Bobby Jindal
Assistant Secretary for Planning and Evaluation
Department of Health and Human Services
September 2002

Bobby Jindal was sworn in as the Assistant Secretary for Planning and Evaluation for the Department of Health and Human Services on July 9, 2001. The Administration has made the elimination of health disparities one of its top priorities, as reflected in the Department's strategic plan and Jindal's office is leading the Department's current efforts to revise its five-year plan; "closing the gaps in health care" is one of the eight goals outlined in the plan. Furthermore, "eliminating racial and ethnic health disparities" is one of the specific objectives listed in the draft plan.

Jindal was born and raised in Baton Rouge, Louisiana. At 20, he graduated from Brown University with honors in biology and public policy. Jindal, a Rhodes scholar, received his graduate degree from Oxford University.

Sociodemographic Profile

Neelam Gupta, MPH, MSW

Objective: The author provides key sociodemographic information about South Asian Americans to inform necessary public health interventions.

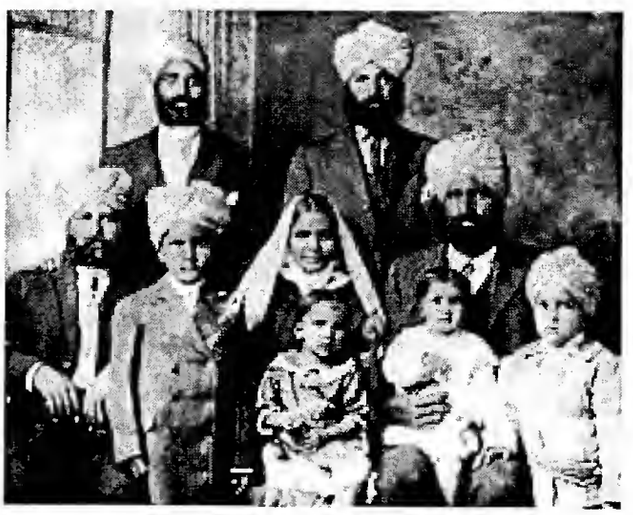
Key Findings: With a population of almost two million, South Asians are the third largest Asian American and Pacific Islander group covering seven countries of origin and numerous Diasporic communities. South Asians are often characterized as a model minority, even though more recent immigrants have a markedly different socioeconomic and occupational profile compared with professionals of the past. In considering health access, it is important to note that 21% of South Asians lack health insurance and 25% are limited-English-speaking.

Recommendations: South Asians in the US are an extremely heterogeneous community, with sizable pockets of need and economic vulnerability that must be considered in designing culturally and linguistically appropriate public health responses.

Introduction: Who are South Asians?

South Asian Americans are a diverse set of communities and cultures with family origins from South Asia. While no universally accepted definition for South Asia exists, seven countries are most commonly listed: Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.[1] Afghanistan, Myanmar (formerly Burma), and Tibet are also sometimes included in broader definitions of the region.[2]

South Asians have been scattered around the world due to a number of factors, including colonialism, political instability and persecution, and economic opportunity. People of South Asian descent have immigrated to the United States from a number of other countries. Some of the larger communities reflecting the South Asian Diaspora include Mauritius; Fiji, and other areas of the Pacific Islands; Southeast Asia (Indonesia, Malaysia, and Singapore); Africa (Kenya, South Africa, Tanzania, Uganda, Nigeria, and Zimbabwe); the Caribbean (Guyana, Jamaica, Surinam, and Trinidad and Tobago); Australia and New Zealand; Great Britain and other parts of Europe; and Canada.[3,4]



Courtesy of: Kartar Dhillon

Immigration History: The Three Waves

South Asians have a rich history in this country dating back to the late eighteenth century even though the bulk of migration has taken place since the early 1960s. Like other immigrants, South Asians have come to the United States for several reasons. The first South Asian arrival was documented in 1790, as an unidentified "man from Madras" in Salem, Massachusetts. The early immigrants arrived as indentured servants or on merchant trading ships. While little information is available about them, it is believed that they were absorbed into the slave population or returned home.[5]

South Asian immigration has primarily occurred in three waves. In the first wave, mainly men from the Indian state of Punjab arrived in the 1890s to the 1920s.[6] For example, from 1899 to 1920, 7,348 people of Indian ancestry came to the United States and Canada, 85% of whom were of the Sikh religion. The re-

mainder of these immigrants were Muslims (13%) and Hindus (2%).[7] Despite intending to seek their fortunes and return home after a few years, these immigrants settled in California and other parts of the western United States. The vast majority never returned home, working mainly in agriculture, lumber, steamship, and railroad industries.[8,4]

Two legislative actions placed severe restrictions on the continued growth of the South Asian American community in the 20th century. First, the Immigration Act of 1917 established a "barred zone" of countries, including the South Asia region, from which individuals were prohibited entry into the United States. Second, the Immigration Law of 1924 prohibited recent immigrants from bringing family members, such as wives and children.[9] Seeking family life, many of the men married into the Mexican community. A unique culture known as Mexican Hindus emerged in areas such as Yuba City and the Imperial Valley, both in California.[8] As South Asians gained prosperity in the farming sector, they encountered resistance to their continued economic success, such as obtaining citizenship status.

South Asians faced two important challenges to naturalization and its associated rights. While citizenship was permitted only for Whites and persons of African descent, Indians began to be classified as non-Whites, who were aliens and, hence, ineligible for this privilege. The California Alien Land Law of 1913, revised in 1920 to close any loopholes, prevented immigrants from owning and leasing their own land. Similar laws were also passed in other states.[9,10] In addition, the Supreme Court delivered a landmark decision in the 1923 case *United States v. Bhagat Singh Thind* in which citizenship was definitively denied. The justices determined that Indian immigrants were Caucasians but not "White," and therefore, unable to become citizens.[11] The decision stood until the 1946 Luce-Cellar Bill was enacted, permitting citizenship for Indians and Filipinos. The ban on South Asian immigration was also lifted, and an annual quota of 100 immigrants.[12]

The second wave of South Asian immigration commenced with the passage of the 1965 Immigration and Nationality Act (INA). The INA law attracted large numbers of skilled, highly educated workers, with professions in areas of science, engineering, and medicine.[9] For example, between 1966 and 1977, 20,000 scientists with PhDs, 40,000 engineers, and 25,000 doctors emigrated from India alone.[13]

South Asian physicians, nurses, and other health professionals have made a particularly noteworthy contribution to the health care field in the US. By 1997, South Asians represented 4% of the nation's medical doctors. In some inner city hospitals, South Asians may constitute as high as 40% of the staff physicians and 50% of the nurses. In Ohio, one out of six physicians is South Asian, with several other states approaching that proportion.[14]

After 1965, California became one of several popular destinations for new arrivals. By the 1990s, eight major states located in the East (New York, Pennsylvania, New Jersey), the Southwest (Texas), the Midwest (Michigan, Illinois, Ohio), and the West (California) represented 70% of the South Asian American population.[14]

Table 1. South Asian American Subgroups

South Asian Subgroup	Number in 1990	Number in 2000	Percentage Increase
Asian Indian	815,447	1,678,765	106%
Bangladeshi	11,838	41,280	249%
Pakistani	81,371	153,533	89%
Sri Lanka	10,970	20,145	84%
Total	919,626	1,893,723	106%

Source: US Census, 1990 and 2000[22]

Starting in the 1980s, the expansion of the information technology sector prompted revision of immigration laws to ease the admission of high skilled professionals, students, and their families. As they are mainly temporary workers with restricted visas such as H1Bs, these individuals are not officially immigrants. However, they have played an important role in advancing economic growth, and a significant number eventually obtain green cards or citizenship, converting their immigration status.[4,13]

In the third wave, the family reunification provisions of the 1965 act allowed extended families of the settled professionals to emigrate. Especially after 1985, the third phase reflected a changing profile with larger numbers of less educated, lower skill workers, who were employed in service sector jobs such as taxi driving, motels, convenience stores, and gas stations. Unlike previous professionals during the second wave, these immigrants were economically disadvantaged. Contributing factors included reduced economic opportunity at home, as well as increased political instability in certain areas of South Asia and in places with large Diasporic communities, such as East Africa.[4,13]

South Asian Classification in the US Decennial Census

At a national level, South Asians are usually included in the race category of Asian Americans or Asian American and Pacific Islanders (AAPIs) for sociodemographic and health statistics. In the first decennial Census in the United States conducted in 1790, race classifications were included. However, AAPI subgroups were not included until 1860 when data for the Chinese was collected. South Asian data were gathered on an irregular basis until the 1970 Census when Asian Indians were classified as White. In the 1980 Census, six response categories were added for Asians, including Asian Indians. These classifications were also used in the 1990 and 2000 Census. In addition, the 2000 Census introduced a separate "Other Asian" response category. In


Abhijit Ghosh

category. In this area, other Asian subgroups, including the South Asian ones without their own categories, could write in a specific race response.[14] People of Bangladesh, Bhutan, Nepal, Pakistan, and Sri Lanka were included among "Other Asians."[15]

It is also important to note that Census 2000 allowed respondents to select more than one race category for the first time. This makes Census 2000 data more complex and not directly comparable with 1990 figures. If comparisons are made, the US Census Bureau advises that a range be used, with "Race Alone" as the minimum and "Race Alone or in Combination" as the maximum.[16,17] Of all respondents who reported Asian Indian either alone or in combination, 88.4% reported the "Race Alone" category and the remaining 11.6% reported in combination with one or more races.[14]

As a result, this paper uses the minimum set of "Race Alone" statistics from Census 2000. In addition, information on Asian Indians rather than all South Asians is presented when comprehensive data are not available. Even though many of the trends may be attributed to all South Asians, variations among subgroups do occur, but may be masked due to these data limitations. In addition, since the US Census Bureau has not released detailed sociodemographic statistics according to race at the time of publication, the 1990 data will be referenced as needed.

Table 2. Fifteen US States with Largest Numbers of South Asians, 2000

Rank	State	Asian Indians	Bangladeshi	Pakistani	Sri Lankan	TOTAL
1	California	314,819	3,044	20,093	5,775	343,731
2	New York	251,724	20,269	32,692	2,692	307,377
3	New Jersey	169,180	2,056	12,112	1,183	184,531
4	Texas	129,365	2,438	19,102	1,195	152,100
5	Illinois	124,723	668	15,103	549	141,043
6	Florida	70,740	1,183	5,299	562	77,784
7	Pennsylvania	57,241	806	3,041	427	61,515
8	Michigan	54,631	1,674	4,338	393	61,036
9	Virginia	48,815	1,786	9,528	666	60,795
10	Maryland	49,909	1,044	4,959	1,226	57,138
11	Georgia	46,132	1,003	3,488	227	50,850
12	Massachusetts	43,801	573	2,145	651	47,170
13	Ohio	38,752	555	1,955	471	41,733
14	North Carolina	26,197	258	1,916	295	28,666
15	Washington	23,992	119	1,214	326	25,651
Total		1,450,021	37,476	136,985	16,638	1,641,120

Source: US Census Bureau, 2000[24,25]

The Model Minority Myth and its Impact on Health Issues

The South Asian American population has usually been viewed as an exceptionally successful immigrant group. In the 1990 Census, Asian Indians reported the highest median household income ($49,696) and annual median income ($40,625) of any foreign-born group.[18,19] Among employed Asian Indians, 30% were working in professional careers, compared with 13% of all employees in the nation.[20] Asian Indians also ranked first in holding stocks and IRAs, in rates of educational achievement, and in the attainment of managerial or professional positions according to a 1991 survey of five Asian American groups.[18]

However, this picture of achievement results in a model minority characterization which causes two problems that undermine public health efforts. First, South Asian Americans are perceived as being "wealthy and healthy," with no health and social problems. Second, the low-income segment of the community is overlooked. It is important to note that the economic advancement has been experienced by South Asian immigrants settled before the 1980s or in high demand fields, such as computer engineering and software development. South Asians entering the country after that time have a markedly different profile: lower income, fewer professional positions, higher unemployment rates, higher rates of business failures, and higher rates of families in poverty.[4,13,18]

South Asian Americans Today: Key Sociodemographic Facts

The Asian American population increased from 6,908,638 or 2.8% of the population in 1990, and to 11,898,828 or 4.2% of total population in 2000. Thus, while the total population of the United States increased by 13.2% from 1990 to 2000, the Asian American population increased by 72%.[21] South Asian Americans are the third largest AAPI group, totaling almost two million people when Asian Indians and other South Asian subgroups found in the "Other Asian" category are combined. The recent Census captures numbers of four South Asian subgroups and rates of increase in the past 10 years for each (see Table 1). Bangladeshis were the fastest growing among South Asians, growing to a population of 41,280, a 248% increase. Asian Indians were another fast growing South Asian group (with an increase of 106%), totaling 1.678 million. The Pakistani subgroup now stands at 81,371, reflecting an 89% increase. The Sri Lankan population increased by 84%, with a current total of 201,145.[22]

Table 3. Thirty US Metropolitan Areas with Largest Numbers of South Asians, 2000

Rank	Metropolitan Area (MSA/CMSA)	Asian Indian	Bangladeshi	Pakistani	Sri Lankan	Total
1	New York / Northern New Jersey/ Long Island, NY / NJ / CT / PA	400,194	21,865	42,390	3,646	468,095
2	San Francisco / Oakland / San Jose	144,231	664	6,150	1,000	152,045
3	Chicago / Gary / Kenosha, IL / IN / WI	116,868	569	14,621	478	132,536
4	Los Angeles / Riverside / Orange County	104,482	2,201	9,302	4,189	120,174
5	Washington / Baltimore	88,211	2,736	13,515	1,821	106,283
6	Philadelphia / Wilmington / Atlantic City, PA / NJ / DE / MD	52,380	1,166	3,435	295	57,276
7	Houston / Galveston / Brazoria, TX	51,959	777	10,633	445	63,814
8	Dallas / Ft. Worth	49,669	1,192	5,905	379	57,145
9	Detroit / Ann Arbor / Flint, MI	45,731	1,558	3,718	317	51,324
10	Boston / Worcester / Lawrence, MA / NH / ME / CT	43,732	560	1977	615	46,884
11	Atlanta	37,162	939	2,990	152	41,243
12	Miami / Ft. Lauderdale	23,467	423	2,531	123	26,544
13	Seattle / Tacoma / Bremerton, WA	20,332	97	178	1,023	21,630
14	Sacramento / Yolo, CA	16,992	38	111	1.912	17,143
15	Minneapolis / St. Paul, MN / WI	14,535	144	778	352	15,809
16	Orlando	12,952	178	1,161	81	14,372
17	Cleveland / Akron, OH	12,648	120	530	109	13,407
18	Phoenix / Mesa, AZ	11,534	300	98	522	12,454
19	Tampa / St. Petersburg / Clearwater, FL	10,854	87	40	430	11,411
20	San Diego	10,148	102	127	522	10,899
21	Denver / Boulder / Greenley, CO	8,827	86	574	94	9,581
22	Pittsburgh	8,725	91	368	91	9,275
23	Portland / Salem, OR / WA	8,642	94	372	220	9,328
24	St. Louis, MO / IL	8,277	74	889	71	9,311
25	Cincinnati / Hamilton, OH / KY / IN	7,893	79	415	118	8,505
26	Milwaukee / Racine, WI	7,132	37	687	76	7,932
27	Kansas City, MO / KS	6,088	52	557	49	6,746
28	Indianapolis	5,266	69	426	52	5,813
29	San Antonio	3,938	35	375	40	4,388
30	Norfolk / Virginia Beach / Newport News, VA	3,250	59	216	77	3,602
Total		1,336,119	36,392	125,069	17,389	1,514,969

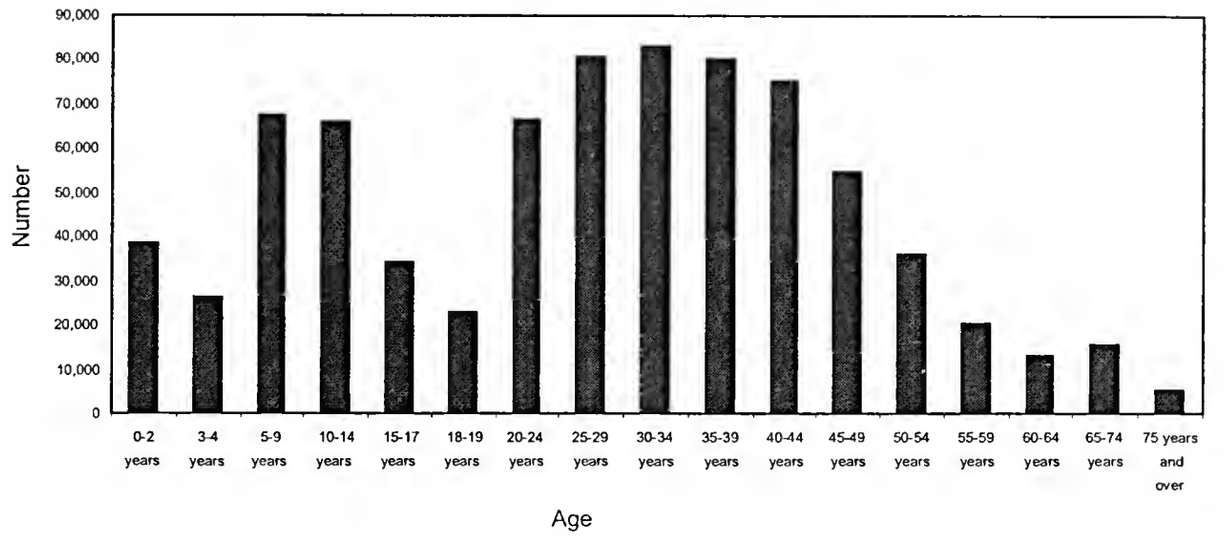
Source: US Census Bureau, 2000[25,26]

Geographic Distribution. In the 2000 Census, the states with the largest Asian populations, in descending order, are California, New York, Texas, Hawaii, New Jersey, Illinois, Virginia, Florida, Massachusetts, Pennsylvania, and Maryland.[23] In order of AAPI percentage of total population, these states are: Hawaii (40%), California, (10%), New Jersey (5.7%), New York (5.5%), Maryland (4.0%), Massachusetts (3.7%), Virginia (3.6%), Illinois (3.4%), Texas (2.6%), Pennsylvania (1.8%), and Florida (1.7%).

Over 86% of South Asians reside in fifteen states. These states with the largest South Asian populations, in descending order, are: California, New York, New Jersey, Texas, Illinois, Florida, Pennsylvania, Michigan, Virginia, Maryland, Massachusetts, Georgia, Ohio, North Carolina, and Washington (see Table 2).[24,25] The 2000 Census shows that South Asian communities are growing in major metropolitan areas, as well as less urban areas such as the Midwest and the South.[4] About 80% of South Asians live in 30 metropolitan areas (see Table 3). The largest concentration of South Asians is in the Northeast, including New York City, Northern New Jersey, Long Island, and Philadelphia, followed by major metropolitan areas in California and Chicago.[25,26]

Length of Residence. Since the bulk of South Asian migration occurred as a result of the 1965 INA and subsequent legislation, a large proportion of the communities are first generation immigrants. According to the 1990

Figure 1. Age Distribution of Asian Indians, US Census 1990



Census, the majority of Asian Indians are foreign born at 55%.[27] While recent immigration has most likely increased this segment in the past 10 years, second generation South Asians also constitute a significant proportion of the population.

Age and Sex Characteristics. Figure 1 displays the age distribution of Asian Indians in the US according to the 1990 Census. With a median age of 29.4 years, Asian Indians are a relatively young population when compared with the mainstream community and other API groups.[28] Asian Indians in 1990 also showed a slightly greater proportion of males, with 54% males and 46% females.[29] These differences may be attributed in part to immigration patterns.

Religious, Cultural, and Linguistic Diversity. Tremendous religious, linguistic, and cultural diversity exists among South Asians. South Asians may identify themselves according to regional or religious affiliation. Furthermore, language and regional commonalties may also occur across national lines. For example, Indian Muslims from Indonesia and Africa and Muslims from Pakistan may speak Urdu as a first language; Gujarati-speaking Hindus and Muslims are from both India and Africa; Christians from northern India may speak no language in common with Christians from southern India. There are Bengali speakers from India and Bangladesh, who may be Muslim or Hindu. Within these groups, there are class and, sometimes, caste differences as well.

Several major religions are practiced throughout South Asian communities, which include Hinduism, Islam, Christianity, Sikhism, Buddhism, Zoroastrian, and Jainism.[4] Within each of these groups are subgroups, some more strongly distinguished than others. Due to religious and moral convictions as well as regional variations in available food, a variety of dietary practices exist. A large proportion of South Asians is devout vegetarian, while others abstain from eating certain animal products, such as pork and beef.

The incredible linguistic diversity among South Asians requires special consideration, as it covers seven countries and Diasporic communities with over fifty official languages and numerous spoken dialects. The most common South Asian languages spoken in the US are Bengali, Gujarati, Hindi, Punjabi, and Urdu.[4] In 1980, New York displayed the following distribution: 34% Gujarati, 20% Hindi, and 24% combined South Indian languages (Tamil, Kannada, Malayalam, Telegu). During the

Figure 2. Family Income Distribution of Asian Indians, US Census 1990

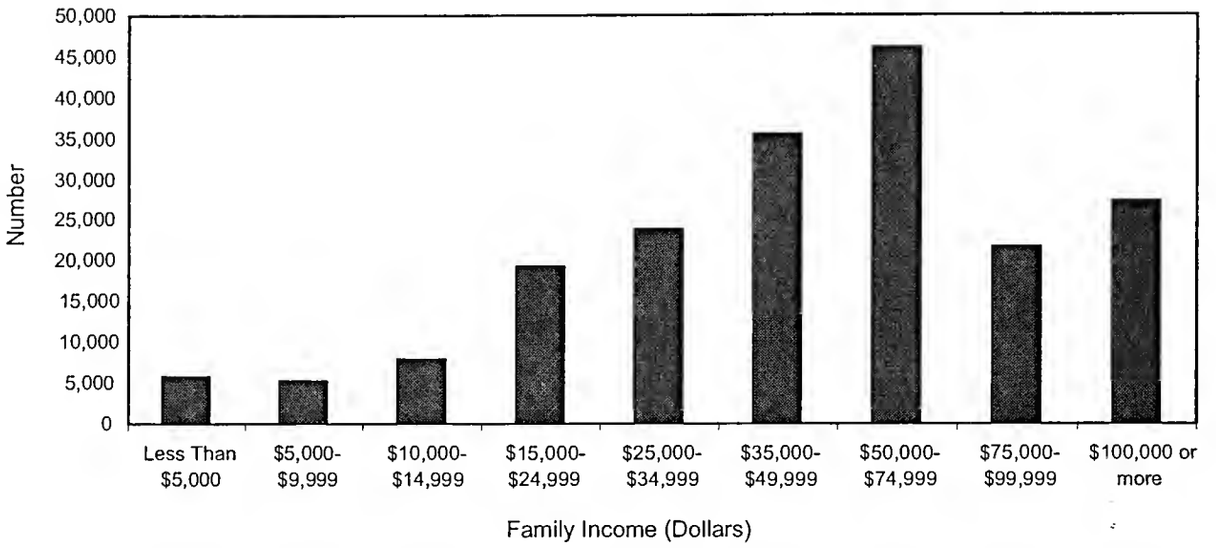
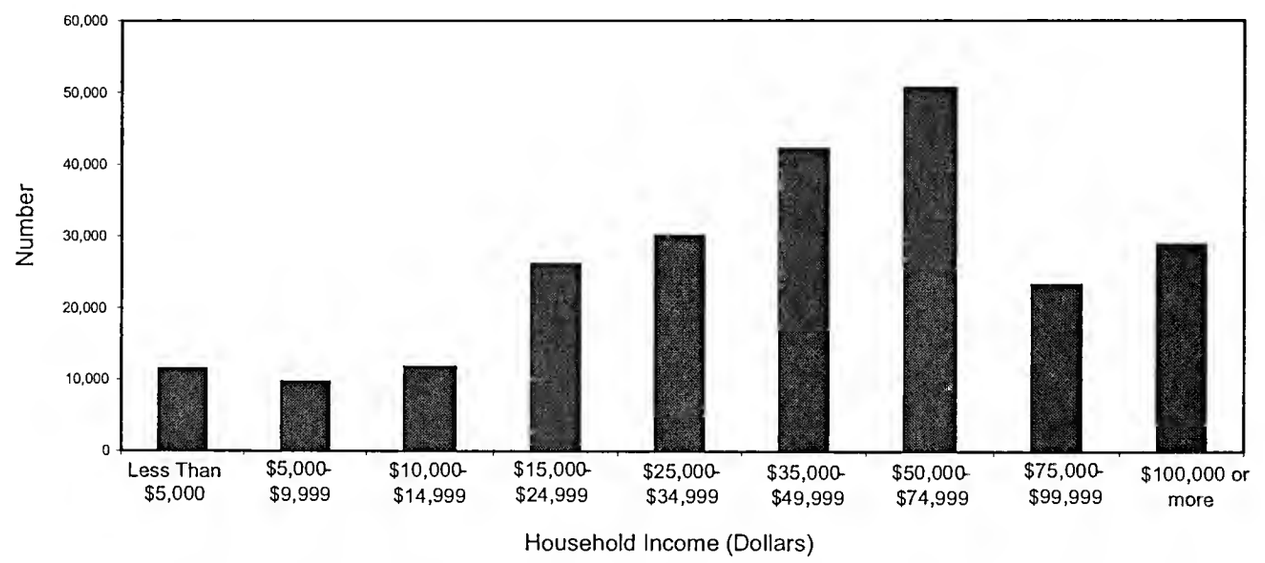


Figure 3. Household Income Distribution of Asian Indians,US Census 1990



same period, the breakdown in Southern California was projected at 20% each for Punjabi and Gujarati, Urdu 18%, Hindi 16%, South Indian languages 12%, and Bengali 11%.[18] Shattering the stereotype that South Asians are all English speaking, the 1990 Census also revealed that approximately 25% of Asian Indians are limited-English-proficient (LEP), or do not speak English well.[30]

In August 2000, President Clinton signed Executive Order 13166, which requires federal agencies to have written policies on providing effective services to LEP populations being served by federally funded programs. Three weeks later, US Department of Health and Human Services (DHHS) issued written policy guidance to assist health and social services providers ensure that LEP populations can effectively access health and social services.

The guidance, published in the Federal Register by the Office of Civil Rights, outlines legal responsibilities of health care providers who receive funding from DHHS to assist LEP populations, including those who participate in Medicaid, CHIP, and Temporary Assistance to Needy Families (TANF). As a response to the growing South Asian population in the US, many of whom are part of the LEP population, health care providers must use this written guidance to effectively provide high quality and timely health services to South Asian clients.[31]

Health Coverage and Socioeconomic Status. While extensive information on socioeconomic status of South Asians is limited, some interesting data strongly indicate the need for increased attention to health and social service needs in a culturally and linguistically sensitive manner. According to Families USA, 21% of all South Asian Americans lack health insurance, which is above the national average at 18%.[32] A national survey of individuals and families in poverty in 1993 ranked Indians 12th, while a regional Pacific Rim States study in 1995 found that California had the highest percentage (14%) of Indian American children living in poverty.[18] Among immigrants from India between 1987-1990, only 80% had a high school education, 9% were unemployed, and 20% lived below the poverty line.[18]

Figure 2 displays the family income distribution of Asian Indians according to the 1990 Census, while Figure 3 displays household income distribution.[19] Even though Asian Indians had the highest median family income of any group ($49,309), a significant proportion of Asian Indians reported living in lower income households. According to Figure 3, one-quarter of Asian Indians were living in households with incomes less than $25,000.

Accuracy of Reporting Race and Ethnicity. One concern in analyzing death rates among South Asians is the accuracy of reporting race and ethnicity on death certificates. Data on race and ethnicity, other than White and Afri-

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can-American, have only recently been collected on death certificates.[33] Furthermore, death rates are registered by race and ethnicity and depend on accurate reporting of race on death certificates and of population counts, the denominator for rates. A recent analysis that examined reporting of race, ethnicity, and population counts suggests that death rates might be substantially higher than previously reported for Asians and Pacific Islanders (11% higher than the general population).[34]

Conclusion

Although South Asians have been in the US since the late 1790s, they are a rapidly growing population with significant increases over the past several decades. Covering seven countries and additional Diasporic communities, South Asians are an extremely heterogeneous community, differing along religious, linguistic, cultural, and socioeconomic lines. Sometimes poorly understood due to a lack of reliable data, they are often stereotyped as a model minority even when sizable pockets of need and economic vulnerability exist. However, sociodemographic information on the community has become increasingly available and points to significant disparities in health care access and status. These differences will be described in greater detail in the subsequent population and health condition specific chapters. They demonstrate there is an urgent need for increased attention to public health endeavors tailored to the unique characteristics of South Asians in the United States.

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Additional Resources

For information on Asian American immigration including South Asian Americans, the following resources are recommended (Library of University of California, Davis):

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Youth Health

Kalpana Bhandarkar, Amishi Gandhi, MPH, Mona Shah, MSW

Objectives: The authors reviewed available quantitative and qualitative research on South Asian youth ages 18 and under to discern their current health status and needs.

Key Findings: Five percent of all uninsured children in the US are Asian American and Pacific Islander (AAPI). AAPI children are two to three times more likely to lack a usual source of health care than White children. Smoking prevalence among AAPI teens was 20.6% of males and 13.8% of females, as reported by aggregate data from 1990-1994.

Recommendations: Schools and after-school programs should stress the need for school-based intervention and education programs for all students regarding public health insurance programs, oral health promotion, smoking, sexually transmitted infections and HIV/AIDS testing and education, mental health needs, the importance of physical activity, eating disorders, and other issues they feel should be addressed.

Introduction

Youth development is a process embedded with various cognitive, emotional, and physical changes that clearly influence health needs and behaviors. Youth health needs are both specific and unwavering and the public health community must help lay a foundation for their positive development. Children and adolescents must access health care services early and continuously to develop healthy bodies and minds and, at the very least, go to school ready and able to learn. Although many youth face barriers to receiving good-quality health care, children and youth in immigrant families in particular, whether they are foreign-born or US citizens with immigrant parents, face unique obstacles including language, financial, and cultural barriers. Furthermore, cultural, familial, and social factors may translate into added pressures and confusion for young South Asians living in the United States. These factors affect one another and also compound barriers and make it difficult for youth to access the health care system. This chapter explores the specific health care needs of South Asian youth, which often do not vary significantly from all youth. Youth are defined as those 18 years of age and under.

Health Insurance and Access to Health Care

Access to good-quality and comprehensive health care begins with health insurance. Once a child has health insurance, the child tends to receive a continuum of care,[1] which facilitates preventive screenings and immunizations. Primary preventive care promotes healthy physical development, and enables physicians to diagnose and treat developmental problems as they arise. Furthermore, health services often encourage better communication between parents and health care providers, so that the parent may learn how to best provide for their child's health. In addition, adolescents have specific health care needs. Although they are at a critical stage of development, they often exhibit the lowest rates of health care utilization,[2] which in turn compromises their development into adulthood.

In the year 2000 alone, more than nine million children lacked proper health insurance, and among those, 5% were Asian American and Pacific Islander (AAPI).[3] Unfortunately, national uninsurance rates for South Asian children are unavailable at this time because the US Bureau of the Census does not report these rates by AAPI subgroups. (State and local health departments may be able to better assess uninsurance rates of South Asian children in their regions.) The disparities in health insurance rates are alarming as AAPI children

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are two to three times more likely to lack a usual source of health care than White children.[1] Among uninsured AAPI children, 33% have no regular source of care, compared with 4% of insured AAPI children, showing that insurance increases AAPI children's health care provider visits.[1] Compared with insured children, uninsured children are up to eight times less likely to have a regular source of care, nearly three times less likely to have seen a health care provider in the last year, and five times more likely to use the emergency department as a regular place of care.[3]

Recently, the US passed legislation that bars non-citizen immigrants who have entered the US after August 1996 from public health insurance programs for five years, unless states choose to fully fund programs that provide health care to these immigrants.[4] It is imperative that eligible South Asian families be made aware of programs such as Medicaid or the Children's Health Insurance Program (CHIP), so that they may be linked with the health care system. Outreach to South Asian communities must be tailored to meet their needs. Outreach materials must also be made available in South Asian languages common to the outreach area to eliminate language barriers and make health care centers more welcoming, especially to immigrant families.

Immunizations

Immunizations are one of the most effective ways to prevent certain infectious diseases. The Centers for Disease Control and Prevention (CDC) estimate yearly vaccination coverage of children ages 19-35 months through the National Immunization Survey (NIS). In 1997, the NIS (tabulated by race/ethnicity and poverty level) found that 73% of AAPI children living below the federal poverty level (FPL) and 70% of AAPI children in all income levels completed the 4:3:1:3 vaccination series: four doses of any diphtheria and tetanus toxoid and pertussis (DTP4), three doses of oral poliovirus vaccine (OPV3), one dose of measles-mumps-rubella vaccine (1MMR), and three doses of *Haemophilus influenzae* type b vaccine (Hib3).[5] The survey results do not distinguish between ethnic groups within the AAPI category. In comparison, 72% of non-Hispanic White children living below the FPL and 79% of non-Hispanic White children in all income levels completed the series in the same year.[5]

It is difficult to gauge South Asian children's immunization rates, as they have not yet become a subcategory within the AAPI category in many research studies. Local community health centers with high South Asian clientele, as well as state and local health departments, may give a better picture of what percentage of South Asian children in the US are vaccinated. Similarly, it is on the state and local level where outreach efforts to South Asian families can be most effective. Studies of immunization rates of South Asian children therefore should be funded and supported in state and local health care centers to determine where outreach is most needed.

Mental Health

For many South Asian children, mental health services are critical to their positive and healthy youth development. Children of immigrants, as well as foreign-born children, are especially at risk for emotional or behavioral problems, due to the acculturation process, and living in "dual" cultures ("South Asian" and

"American"). One study shows that immigrant children and children of immigrant parents display "lower feelings of self-efficacy" and heightened feelings of alienation from their peers in schools, compared with children in native-born families.[6]

Studies show that depression and depressive symptoms are common among many Asian American youth, especially young girls. According to a national survey, 30% of Asian American girls in grades 5 through 12 report suffering from depressive symptoms. More alarmingly, in 1997, suicide ranked as the leading cause of deaths among Indians in the US ages 15 to 24. Though these mental health problems exist, the number of AAPI youth who receive mental health services is very low. Asian American children are significantly less likely than Whites, Blacks, and Latinos to receive mental health services. For example, of all children in New York City who received mental health services in 1995, only 1% was Asian American.[7]

In 1999, the US Surgeon General, Dr. David Satcher released a report calling for greater national and community-wide attention to the mental health needs of children and adolescents in the US. While 10% of all children in the US experience emotional and/or behavioral problems, this report found that the mental health needs of over 80% of these children remained untreated.[8] In 2001, the Surgeon General released a supplement to the mental health report focusing on how racial and cultural disparities affect access to mental health services. For the AAPI population, the report asserts that the quality of mental health services is poorer than that for Whites, and there is a lack of providers with appropriate language skills to serve the AAPI population.[9] Furthermore, AAPIs have lower utilization rates of mental health services, often because of cultural stigma, shame, and mistrust of mental health services.[9]

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To provide for children's mental health needs, the Surgeon General recommends promoting awareness on children's mental health issues in schools and communities and training 'front-line' providers, including family members and other key players in a child's life, to recognize and manage children's mental health issues.[8] To provide for AAPIs' mental health needs, the Surgeon General recommends expanding the science base of knowledge on AAPIs' mental health conditions and needs, improving availability of and access to treatment, reducing barriers to treatment such as cost, language, and transportation, and improving the quality of mental health services.[9]

Eating Disorders

Two of the most prevalent eating disorders are anorexia nervosa and bulimia, which develop most often in girls between ages 11 and 18.[10] Anorexia nervosa is defined as "extreme body emaciation caused by emotional or psychological aversion to foods and to eating."[11] Bulimia is characterized by uncontrolled episodes of overeating usually followed by self-induced purging. The two disorders are so closely related that "50% of those who suffer from bulimia have struggled or continue to struggle with anorexia."[12] Though studies examining South Asian girls and eating disorders are not available, South Asian girls are not immune to these diseases. Moreover, eating disorders are often undiagnosed among minority women due to cultural attitudes that stigmatize diagnosis and psychological treatment.

Studies show that social attitudes and family factors play a major role in the development of anorexia.[12] "The global socialization of Anglo-European norms and values through the media depiction of 'the perfect woman' results in women of color internalizing White American norms as a standard for what are ideal physical characteristics.... The psychological impact of having their ethnic features...devalued by society, as well as holding themselves to an unattainable [image], can produce a...crisis of self-esteem in some women of color."[11] In other words, living within a "dual culture" can have serious emotional and physical ramifications on all South Asian youth, especially girls. It is imperative that prevention and intervention efforts be launched in homes, schools, communities, and with health care providers to help prevent eating disorders, but also diagnose and help treat them. In addition, treatment approaches that are sensitive to the South Asian culture must be encouraged among health care providers, for which a solid understanding of South Asian cultural norms and familial expectations is necessary.

Obesity

Obesity during adolescence is associated with an increased risk for obesity during adulthood. Among adults, obesity is associated with increased risk for death, coronary heart disease, diabetes, hypertension, and much more.[13] The National Longitudinal Study of Adolescents (Add Health Study) uses the 85th percentile for body mass index (BMI) as the cut-off for overweight and defines adolescents as those in grades 7 to 12.[14] The only South Asian subgroup within the AAPI category is "Indian Americans," who were included in the "Other" category. Among "Other" AAPI adolescents, 28.2% had a BMI above the 85th percentile, compared with 24.2% of White adolescents.[15] Furthermore, the Add Health study reported significant increases in obesity levels for second (26.9%) and third generation (27.6%) AAPI children, compared with first generation (11.6%) AAPI children.[15]

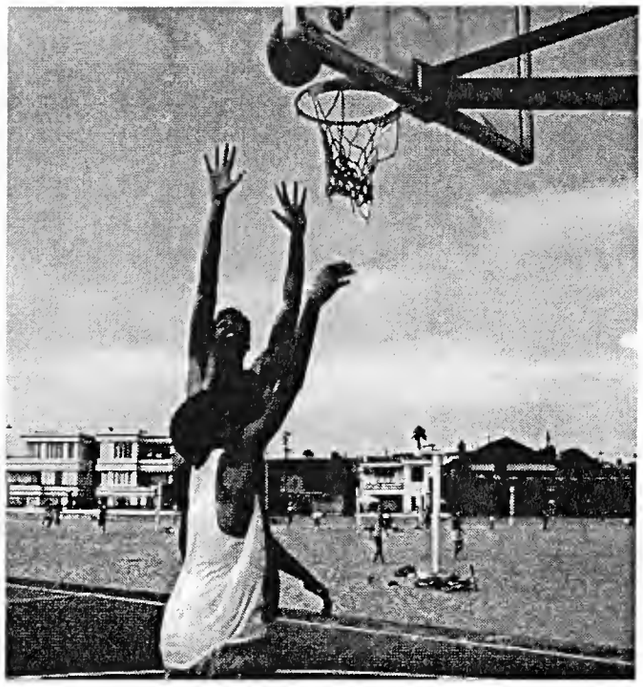
The results of this survey show that AAPI children undergo a strong acculturation process since first generation youth showed less obesity than those raised in the US. To study both acculturation effects and obesity for South Asians, it would be useful to further distinguish ethnic groups within the AAPI population in future studies. Also, the importance of a healthy diet and regular exercise must continue to be stressed in schools, starting at the elementary school level.

Community-Based Services

There are several community-based organizations that currently provide health and development services to South Asian youth. Narika, in Berkeley, California, offers support through health information, referrals, workshops on sexual and cultural identity and dealing with violence. Raksha, in Atlanta, Georgia, has formed a youth leadership council through which South Asian youth participate in peer education activities to promote positive behavior. Asian Community Mental Health Services, based in Oakland, California, runs a children and youth assessment and treatment program for AAPI youth. Youth-centered mental health services are available for children with stress disorders, behavioral problems, depression, and youth dealing with grief. These services involve not only youth, but their families, schools, and communities. In Queens, New York, South Asian Youth Action (SAYA!) promotes self-esteem, provides opportunities for growth and development, and builds cultural, social and political awareness among young people of South Asian background. Some of these organizations also provide services and workshops specifically for young girls to address their health concerns and needs.

Conclusion

Limited research suggests that South Asian youth health needs are similar to those of all youth. However, it is clear that parents, caregivers, and communities must understand youth needs and how to best provide good-quality health care, focusing particular atten-



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tion on cultural and ethnic differences. Adolescence is difficult enough without the added pressure and confusion of living within dual cultures (South Asian and American). Because adolescents are at a critical stage of development and are constantly developing, they are quite impressionable and their problems and pressures are often intensified. Sometimes these issues are invisible to their own families because of stigmas that lay within South Asian culture. In short, children and adolescents need stable and effective support systems, as well as age-sensitive and culturally-appropriate health care at school, from their health care providers, and at home so they can lead healthy and productive lives.

Certainly, South Asian parents have the greatest responsibility for ensuring access to health services for their children to help them develop a sound body and mind. Schools must play a larger role in educating parents and communities not only about the health needs of children but also on how to provide best for these needs. Schools and their staff are in a unique position because they can serve as a strong link between health care services and children. Beyond educating parents, schools, community groups, and after-school programs must increase their efforts to provide directly for the health needs of South Asian youth, as parents may often be disengaged from their community and its health services. Furthermore, the onus lays not only on South Asian families, or federal and state governments, or schools, but also on the greater South Asian community to come together and form support systems so that South Asian children can lead healthy lives and continue to do so throughout adolescence into adulthood.

Recommendations

- Federal agencies must administer more research on South Asian youth and state and local health centers and agencies must perform more needs assessments. Since Census 2000 was the first Census to designate "Asian Indian" as a separate category, hopefully that will compel federal, state, and local agencies to conduct studies of this ethnic group within the AAPI population.

- Schools and after-school programs should stress the need for school-based intervention and education programs for all students with regard to education about public health insurance programs, oral health promotion, smoking, sexually transmitted infections (STIs) and HIV/AIDS testing and education, mental health needs, the importance of physical activity, eating disorders, and other issues that need to be addressed.

- School-based health centers should be funded and supported as they have the ability to provide for basic and advanced health needs of South Asian children and youth.

- Local health departments should continue to run community and school-based health promotion programs to educate youth, parents, and caregivers about the aforementioned child and teen health issues.

- Health services in communities with large South Asian populations should provide services and education materials in South Asian languages common to that area.

- The South Asian community should play a larger role in helping provide for the needs of South Asian youth through language translation services, health promotion, health insurance outreach, and more.

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Women's Health

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Objectives: The authors reviewed the health conditions that are particularly relevant to women of South Asian origin including anemia, osteoporosis, and reproductive health, and report on methods to improve their knowledge, access, and utilization of health care services.

Key Findings: Physicians in the United States have noticed a greater number of women from Bangladesh and Pakistan presenting with anemia due to thalassemia, a hereditary trait for abnormal hemoglobin, which contributes to early destruction of red blood cells. Although South Asian women in the US receive first trimester prenatal care at about the same rate as White women (80% vs. 82%), women who have immigrated from India are more likely to deliver low birth weight infants than White women and women in other ethnic groups. Women's health is greatly affected by family structures and expectations, guilt, pressure, isolation, and socioeconomic status.

Recommendations: South Asian, Asian American and Pacific Islander, and mainstream health, service, policy, and advocacy organizations must work together to include South Asian women in efforts to collect, analyze, develop and program around information about their needs. South Asian women want to be better informed about disease and illness, how to access health care services, and the benefits of prevention efforts such as healthy behavior and decision making.

Introduction: The Health Experience of South Asian Women

Health is a concern for all South Asian women in the United States, yet few perceive themselves at risk for many health problems. Furthermore, society often overlooks women's health issues. Many factors contribute to the perception that women are immune to health risks.[1,2] While there are some data shedding light on risk factors and outcomes for Asian American and Pacific Islander (AAPI) women, rarely have studies adequately explored South Asian female populations in the US as a unique group.

Although the health needs of South Asian women do not vary significantly from the general female population in the US, their health-seeking behaviors need to be better understood as they influence accessibility to mainstream health services.[3] South Asian women have traditionally played the role of primary caregiver for both family and community, often limiting their ability to make their own health and well-being a priority. Several factors influencing women's attitudes and behavior towards health services include: fear of the establishment or authority; embarrassment of self or body; low self-esteem; isolation; lack of knowledge about health issues, services available, and preventive care; and difficulty with adherence, coping, and communication skills. Fear of rejection and discrimination may also prevent women from disclosing information regarding their health and sexuality.[1,4] Quite often, information on various health topics is not readily accessible, and may result in neglect of one's own physical and emotional well-being, especially when women do not know how or where to access services or are afraid or ashamed to seek assistance. Limited language capacity in English adds to feelings of discomfort and isolation, further complicating the process of seeking mainstream health care services.[3]

Some South Asian women are challenged by financial and economic restrictions that hinder access to good-quality health care services. Immigrant women do not always control their own finances.[5] This may be because they lack employment opportunities or options outside of the home and have limited financial independence. Financial dependence limits their access to knowledge and awareness of existing services and creates physical barriers to care, such as a reliance on others for trans-


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care, such as a reliance on others for transportation, thus restricting their mobility to and from health care providers. Inadequate health care coverage and high medical costs also prevent the use of needed services. A 2001 report by Families USA in Washington, DC notes that 21% of South Asians are uninsured in the US.[6]

In many ways, South Asian Americans are still considered a "model minority," an ethnic group who face few health problems, are wealthy, and can easily afford health care costs as needed.[7] Over time, this myth has further perpetuated the problem. The perception that South Asian women are not at risk for health problems has become accepted, minimizing the need for early intervention and prevention of disease and resulting in treatment at later stages of illness.

Contributing to these obstacles is providers' lack of resources, information, and training on the specific health problems and social realities South Asian women encounter.[2] Often, physicians of South Asian descent are ill-equipped to address women's health issues or may have gender biases. Inhibition between South Asian women and their physicians prevents complete disclosure of personal information and health problems and results in faulty health assessment and treatment.[8]

Yoshioka and DiNoia explain well the obstacles that AAPI women may face in obtaining health services:

> *Limited research suggests that there is a complex interweaving of cultural, environmental, and interpersonal factors that contribute to placing immigrant families at risk...traditional Asian values of privacy, honor, self-restraint, harmony, and order may encourage the minimization and hiding of serious family problems. Also, recent immigrants lack the natural informal support networks customary in their native countries. They may be unfamiliar with the organization of American social service systems and the way they function. Furthermore, the sense of isolation among women is often compounded by their limited command of English.*[9]

The complex interrelationships between these social, cultural, and individual factors described above are not easily altered. They are nonetheless realities of many women's lives, influencing their decision-making processes, their ability to negotiate personal needs, and their health-seeking behavior. They require exploration and should be considered in future evaluations of South Asian women's health.

Epidemiology in the AAPI and South Asian Communities

Although statistical data on South Asian women living in America and on barriers to health care are limited, researchers are making efforts to develop an understanding of the emerging health risks for this population. Several health issues in particular impact the lives of women who are of South Asian descent and living in the US.

In 1992, five leading causes of death were reported for AAPI women: heart disease, malignant tumors (such as breast cancer), cerebrovascular diseases (such as strokes), accidents and adverse effects, and pneumonia and influenza.[10] For the category Asian Indian, the top causes of death reported for women were heart disease, malignant tumors, cerebrovascular diseases, accidents and adverse effects, and diabetes. Compared with AAPI

women, Asian Indian women had the same top three causes for death, but were as likely to die from accidents as from strokes. In addition, diabetes was more common and complications of diabetes were listed more frequently as a cause of death compared with other AAPI groups. Compared with the US population as a whole, these women were less likely to have chronic obstructive pulmonary diseases as a cause of death and more likely to have accidents or adverse events listed as cause of death.

Several lesser-known health conditions are significant, yet under-acknowledged, among South Asian women. Heart disease, cancer, intimate partner violence, and mental health all impact women's lives and are explored in this report in separate chapters on each health topic. Other conditions and health concerns that are particularly relevant to the South Asian female community include anemia, osteoporosis, polycystic ovarian syndrome (PCOS), and reproductive and sexual health.

> *"I got this complaint and thought it would go [away] by itself. But by Friday, it got worse. As I do not have health insurance, I hesitated to go for a doc. Then, by Monday it was painful, face swollen, could hardly drink/eat. Then, I went to [a hospital] emergency [room]. Also consulted an ENT - she is not at all cooperative..."*
>
> *"I have a request. Could you please contact who ever you know in the medical profession that could be of some real help in getting it done? a) no fees b) very low cost c) equally importantly, ASAP. d) If not, I would like to know the names and telephone numbers where it is comparatively cheaper (hospitals, centers, etc.). I do not want to be a burden on any one, in any way."*
>
> - South Asian women who have contacted Sakhi for South Asian Women in New York

Anemia is a common medical disorder with many causes: inadequate production of red blood cells, due to iron and vitamin deficiency and malnutrition; early/increased destruction of red blood cells, due to certain illnesses/infections; and excessive loss of blood, due to menorrhagia, a heavy and unusual blood flow during menstrual cycles. Violence, poor nutritional intake, lack of or delayed medical attention, socioeconomic status, pregnancy, and uterine fibroids (benign growth/mass in the uterus) aggravate anemic conditions. The most common symptom of anemia is fatigue. Other symptoms include shortness of breath, pale skin, heart palpitations, excessive thirst, weight loss, memory problems, and jaundice (yellowish skin). Pregnant women who are anemic, without proper treatment, face the repercussions of both higher maternal and child mortality, as well as lower infant birth weight.

Anemia affects almost a third of the world's population according to the World Health Organization, with 90% of those affected living in developing countries.[11] Based on studies conducted in India, Bangladesh, and Nepal, 60-70% of women in South Asia are estimated to have anemia.[12,13] Though anemia impacts a large number of women in South Asia, there is limited information on rates of disease once they have migrated to the US. When compared with the general female population in the US, the prevalence (percentage of cases in the population) of anemia for women in Pakistan is four times higher.[14] As many as 20% of all women of childbearing age in the US have iron-deficiency anemia, compared with just 3% of men.[15]

A few studies have evaluated the rate of diagnoses of anemia among South Asians in Europe, with iron deficiency identified as causing the majority of cases. For Indian and Pakistani women living in the United Kingdom (UK), menorrhagia (usually secondary to uterine fibroids or endometriosis, abnormal tissues which grow inside the uterus) contributes to high rates of anemia.[16] One study suggests that cultural beliefs and food habits may also

contribute to the high prevalence observed. This analysis found that heavy blood flow during a menstrual cycle was viewed positively because the flow was thought to remove impure blood. In response to a heavy blood flow, women abstained from certain foods replete with iron such as meat, fish, and eggs. Women with vegetarian diets are at a disadvantage if they do not supplement with iron-rich foods and Vitamin B-12.[17,18] In another study, South Asian individuals surveyed were twice as likely to have anemia if meat was not part of their diet, similar to patterns observed in both Chinese and European participants.[18]

Individuals residing in developed countries do not face anemia as a notable health risk overall. However, certain groups show a higher rate of risk for iron-deficiency anemia due to diet and pregnancy[19] and anemia due to thalassemia, a hereditary trait for abnormal hemoglobin, which contributes to early destruction of red blood cells. Physicians in the US have noticed a greater number of women from Bangladesh and Pakistan presenting with the thalassemia trait.[20]

While access to health care and nutritional intake may improve when migrating from a developing country to a developed one, the rate of anemia among women remains a health concern for South Asian women. If diagnosed in time through proper medical attention, most cases of anemia are treatable with iron, folate, Vitamin B-12 rich foods and supplements, and a high-protein diet.

Osteoporosis is a disease caused by decreased bone density that gradually weakens bones, resulting in brittleness and increased risk of fractures (breaking of bones). These fractures occur most commonly in the hip, spine, and wrist. They can impair a person's ability to walk and function unassisted, contribute to loss of height, cause severe back pain and deformity, and may cause prolonged or permanent disability, and even death (often due to hip fracture). Women are four times more likely than men to develop osteoporosis. A woman's life-time risk of hip fracture alone is equal to the combined risk of developing breast, uterine, and ovarian cancer, and osteoporotic fractures are four times more common than strokes.[21] According to one study, one out of five women over age 65 with osteoporosis ends up with a hip fracture.[22]

Due to the low calcium and vitamin D intake of many Asian women and the varying nutritional status of Asian women around the world, the World Health Organization has placed people of Asian origin at higher risk of developing osteoporosis. Osteoporosis is prevalent in over one-fifth of AAPI women. The National Osteoporosis Risk Assessment found that 65% of AAPI women have low bone mineral density, the highest rate of all racial groups. Of these women, 8.2% have developed full osteoporosis compared with only 5.2% of Caucasians.[21,23-25] Indian women over age 50 have approximately a 40% chance of developing an osteoporotic fracture at some point during their remaining lives.[23] It is estimated that up to 25% of Indian women over age 50 may be osteoporotic.[26,27]

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Risk factors for osteoporosis include a small, thin body frame; family history of osteoporosis; a diet low in dairy products and other sources of bioavailable calcium; lack of physical weight-bearing activity and regular exercise; excessive smoking or alcohol consumption, which decreases calcium absorption; abnormal levels of thyroid hormones and the female sex hormone estrogen; extended use of steroids; ongoing menstrual irregularities; early menopause; removal of the ovaries, a natural source of estrogens; and age.

For South Asian women, a leading contributor toward facing osteoporotic conditions is the number of pregnancies they experience. Repeated pregnancies lead to a loss of calcium due to prolonged lactation and breast feeding, denying bones the opportunity to regenerate and recuperate, thus leading to osteopenia (decreased bone mass) and osteoporosis.

In addition, many South Asians are vegetarian, and the American diet may or may not provide them with sufficient absorbable calcium in their dietary intake. Most studies in the available current literature focus specifically on the Indian population, both in South Asia and in the Diaspora. Osteoporotic status of other South Asian women, with their varied diets, nutritional lifestyles, and environments, is unknown. Investigations of osteoporosis have increased due to the potential morbidity and mortality associated with it, mostly morbidity and mortality from hip fracture.[22]

Treatments have focused on lessening progressive bone loss and reducing the risk of fractures. Drug treatments include the use of calcium supplements, estrogen replacement, and estrogen modulators. Calcium-absorption enhancing drugs are used less commonly. Non-drug treatments include exercise; tai chi; acupuncture; herbal therapies; changes in diet; physical therapy; use of magnets, which are thought to enhance bone repair and growth; pain management; and surgery.

Polycystic Ovarian Syndrome (PCOS) is an endocrine disturbance in women, related to

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hyperandrogenemia, an excess of "male-like" hormones. This disorder frequently results in central obesity (an accumulation of fat around the waist area), an increase in body hair, oligomenorrhea (in which the interval between periods is greater, i.e., the number of menstrual cycles per year decreases), and infertility related to anovulation (failure to ovulate). More recently, beta cell dysfunction (cells in the pancreas that produce insulin) and profound insulin resistance have been discovered among women diagnosed with PCOS.[28] The prevalence of this disorder varies among populations and clusters in families; thus, it is thought to be genetically determined.[28] Actual prevalence rates of PCOS vary depending on the definition. Prevalence rates have generally been estimated for White populations in Europe and have ranged from 2% to 20%. Rates among Black and White women in a prospective prevalence study in the US were 3.4% for blacks/African Americans and 4.7% for Whites/Caucasians, suggesting that PCOS may be one of the most common reproductive endocrinological disorders of women.[29]

It is suspected that South Asian women have higher rates of PCOS, and this increased prevalence has been noted in one study of South Asian women living in the UK.[30] While a few other countries have looked at relative rates across ethnic groups and Indian women emerged with higher risks (New Zealand, Singapore), no other specific studies of South Asians have been published in the US. Not all women affected by PCOS have all of the traits mentioned, and even among normal weight

women with PCOS, insulin resistance is a key feature.[31] Similarly, variation in insulin and glucose responses to glucose challenge in a study of Caucasian and Indian women with PCOS has been noted.[32]

South Asians have been found to have higher rates of insulin resistance and metabolic syndrome, a condition that generally includes insulin resistance, lipid abnormalities, and central obesity.[33] These disorders, which represent a spectrum of disease related to impaired use of glucose, and can lead to diabetes, are discussed further in the diabetes and cardiovascular sections. However, it is important to note that recent studies of women with PCOS have focused on the use of metformin as a drug treatment for the underlying insulin resistance to help prevent some of the consequences of PCOS, including infertility, overt diabetes, and heart disease. This medication has also been used among both adult women and teenage girls in order to restore normal menstrual cycles.[28,34] South Asian women with infertility should be screened for PCOS, and they need to be aware of associated problems of insulin resistance that may predispose them to long-term consequences, such as metabolic syndrome, diabetes, and heart disease.

Reproductive and Sexual Health involves the control women have over their sexuality, the knowledge they possess about their own bodies, and the roles these factors play in influencing their overall health. Minority women experience significant cultural and social barriers that may prevent them from receiving adequate reproductive and sexual health care throughout their life span.[1,8,35] Health, women's bodies, and sexuality are neglected areas of discussion in the South Asian context, because they are topics biased by traditional notions of secrecy and taboo.[36] Stereotyping and control over women's freedom to make decisions and express sexuality can lead to negative consequences, such as unhealthy emotions about sexuality and reproductive systems; improper gynecological care; decreased protection against unwanted pregnancy and sexually transmitted infections (STIs); as well as other conditions involving the reproductive system and sexual health.

Although South Asian women in the US receive first trimester prenatal care at about the same rate as White women (80% vs. 82%),[37] women who have immigrated from India are more likely to deliver low birth weight infants than White women and women in other ethnic groups.[38] One study found Asian Indian women breast fed for shorter periods than White women did and were more likely to depend upon extended family members for information on breastfeeding than to seek guidance from a health professional.[39] Also, although a yearly pelvic exam and a cervical cancer test (Pap smear) are most effective in helping to detect STIs and cancers early, data from 1998 show that 33% of AAPI women (age 18 and older) did not have such an exam within the past three years.[40]

In a recent study on sexual violence among South Asian youth conducted during the spring of 2002, Kamat reports that 78% of 153 young women ages 18-25 surveyed on the Internet were sexually active, defined as having engaged in any penetrative sexual activity and 29% of women reported having engaged in sexual contact (without penetration) despite verbal or physical protest or being under the influence of drugs or alcohol (what the author defines as sexual assault).[41]

In another recent dialogue, Apna Ghar, a Chicago agency serving South Asian American women and children who are victims of domestic violence, found the following among women who participated in four focus groups (women of faith, women living in Apna Ghar's shelter, and two groups of young professional women) on reproductive and sexual rights:[42]

- Cultural or societal influences bear a strong influence on their right to choose to have children. They were concerned that a preference for boys dominant in the Indian culture was resulting in an increased number of abortions for gender selection.

- Some identified the culture of silence around issues of sexuality and reproductive choice as contributing to the limited understanding girls and women have about their bodies and their rights.

- They experience tremendous barriers in accessing contraception—from discomfort in asking South Asian providers for reproductive health guidance, for fear they carry cultural biases to their practice or may violate confidentiality and share information with community members, to single women who felt social and religious beliefs that sex is reserved only for purposes of procreation prevent them from accessing family planning services. Affordable and complete birth control education and information was mentioned as a serious necessity.

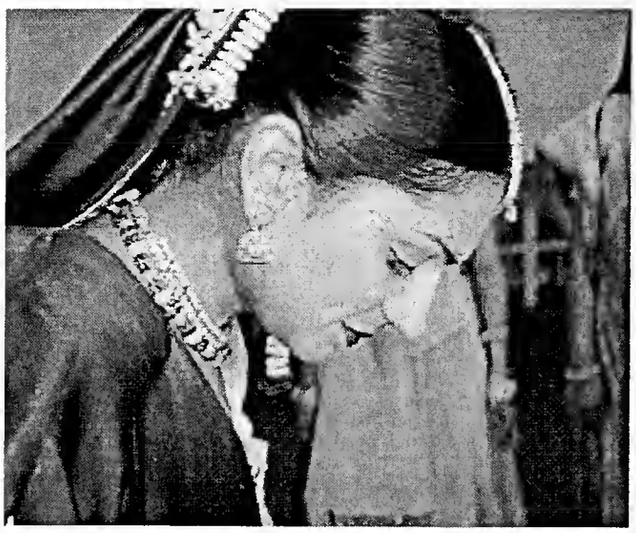
Education, knowledge, healthy sexual behavior (e.g., using condoms and contraception), and screenings are the best ways to protect women from various reproductive health problems. However, reproductive health care behavior, knowledge, and prevention among South Asian women are difficult to assess due to scarce supporting data and a lack of organizations and services catering to such needs.

Assessing Health Needs: The Work of National and Community-Based Organizations

South Asian women need to be better informed about disease and illness, how to access health care services, and the benefits of prevention efforts. As with immigrant and minority health in general, this population's health care needs can be addressed through accessible, effective, sensitive, and appropriate delivery of health services. Within the past decade, community and national efforts have targeted the South Asian population, highlighting social, mental, community, and public health implications of the lack of education and health services.

During 1994 and 1995, the California-based group Asians and Pacific Islanders for Reproductive Health (APIRH) carried out an extensive project, *The Health and Well-being of Asian and Pacific Islander American Women*. Through focus groups, forums, and conferences, they compiled perspectives on the health and well-being of over 300 AAPI women in California and performed an extensive review of medical and academic research. The studies revealed that the women did not know where or how to access help, faced linguistic barriers in seeking health care, and had difficulty integrating two cultures. The study also identified the need for providers to be more culturally sensitive. South Asian American participants specifically mentioned that they want more information on "birth control" and named these issues as impacting their health: "stress, female sexuality, females' role in the family, immigration and adaptation, domestic violence, [and] depression." They reported that when they do not feel well physically, they use "home remedies" or "call mom/parents." And when they do not feel well mentally, they "drink, sleep, eat, seclude self, get aggressive/passive."[43]

The National Asian Women's Health Organization (NAWHO) in San Francisco completed a needs assessment with approximately 300 South Asian women in Northern California in 1996. Their *South Asian Women's Health Project* is the first study to document the broad health needs of South Asian women in America.[8] Key findings of the research included the following:



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- Mental health: Women's mental health is largely affected by guilt, pressure, isolation, and stress due to socioeconomic status and family structures.

- Nutrition: Availability of foods and variations in eating habits make nutrition particularly important. Older women expressed adjusting to new ways of preparing foods in the US as challenging, while younger women mentioned uncertainty about what constitutes a well-balanced meal and differences in at-home versus out-of-home meals.

- Reproductive and sexual health: Many participants reported difficulty in communicating with their families and providers about sexuality, body image, sex, relationships, and marriage.

- Health care education and services: Knowledge, access, and utilization were impacted by the isolation and fear women felt.

The study highlighted the diversity found within the South Asian community, as well as the need for increased and improved advocacy, policies, and programs on South Asian women's health. It also touched upon the pervasive inaccessibility to specific health and social services required for the South Asian community.

Chai Chat: A Health and Safety Education Program for Violence Prevention in South Asian Immigrant Women in Chicago[44] was designed and implemented in 1999 by public health graduate students at Loyola University in Chicago, IL. It confirmed the existing needs of its population and identified emerging needs through a series of eight health-promoting educational sessions. The program educated 12-15 South Asian women, identified through community-based organizations (CBOs) and leaders, on such topics as body wellness, mental health, accessing community resources, and family communication skills in a cultural context. Chai Chat aimed to empower women through education and skills development.

The South Asian Outreach Project (SAOP) at the American Cancer Society in Queens, New York provides targeted care to members of a specific community in the hopes of educating them to make basic health care decisions and access preventive services. Founded in 1997, SAOP has worked to increase cancer awareness and access to cancer information, services, and programs for the South Asian community in the New York area. The effort has found many successes, including screening hundreds of women for breast cancer, sponsoring approximately 10-15 educational programs each year, providing patient services, and developing language-specific and culturally-appropriate cancer information. The community has received the program with great appreciation, interest, and support.

Sakhi for South Asian Women, a community-based organization in New York City which aims to empower women, particularly survivors of domestic violence, has also launched a special project to address the health care issues of South Asian women—*The Women's Health Initiative* (WHI). Founded in 1999, WHI works to provide access to women-specific health care information, education, and services. WHI volunteers, comprised of public health practitioners, social service providers, physicians, nurses, and students, educate women who approach Sakhi through support group meetings and health education sessions; assist with access to health care services through development of a local health resources reference guide and establishment of an on-call system; raise awareness in the South Asian community around issues of women's health through brochures and a speakers bureau; develop and maintain a provider network of health care professionals who can provide culturally competent and sensitive care; and train health care professionals on providing culturally sensitive care for South Asian women.

Conclusion: Improving Health Outcomes for South Asian Women in America

Despite the fact that South Asians are the third largest Asian community in the US and that AAPIs make up 4% of all women in the US,[45] few studies exist on health issues facing this population as a whole and fewer studies have focused on women's health and well-being from the South Asian perspective.

A more systemic approach to addressing the issues of South Asian women's health is needed. Empowering women with the ability to control their bodies and minds, to enhance their health and well-being, and to maintain a degree of self-sufficiency, confidence, and self-respect is critical to ensure progress and healthy outcomes. As women understand their bodies and feel empowered to make decisions about their health, they can better seek out basic health care services and information. Simply providing information, however, is insufficient. Social norms, the surrounding environment, community resources, and support structures also need to be challenged in order to enable and promote continued healthy living.

Recommendations

The following are general recommendations for service providers, advocates, researchers, and policy-makers to work toward an agenda of improved advocacy, programs, and policies on South Asian women's health:

- Increase and improve data collection, analysis, and sharing of data to further study and assessment. South Asian, AAPI and mainstream health, service, advocacy, and policy organizations and institutions must work together to include South Asian women in efforts to collect, analyze, develop, and program around information on the needs of South Asian women. Traditionally, there has been a lack of use of women in clinical trials and other research. Most research to identify health behavior and screening practices has been directed toward White women. More recently, attention has been drawn to the need for specific minority-based research and this trend needs to continue in order to improve health outcomes for South Asian women.

- Advocate individualized attention to the various Asian women populations. The grouping together of all "Asian" women when findings are reported makes it difficult to sift out a specific subgroup.

- Build effective outreach and health education programs and campaigns (culturally appropriate and linguistically sensitive services) to inform all women about healthy behaviors, regardless of race, ethnicity, class, and economics.

- Use existing health and service programs serving South Asian and Asian groups to develop targeted and appropriate programming for women. Primary health care services should ensure that preventive measures are part of daily lifestyles.

- Enhance the capacity of organizations and government agencies to serve South Asian women's groups through knowledge of attitudes and the cultural context of service.

- Design comprehensive training on culturally competent and sensitive care for providers working with Asian women.

- Encourage the South Asian community, of health professionals in particular, to take a pro-active role in raising awareness on women's health and assisting women in need.

- Increase the number of South Asian and South Asian-language specific programs and materials available at health and social welfare centers.

- Focus long term efforts on creating and sharing model programs with others in the field, expanding resources, and ultimately developing plans of action in conjunction with other organizations, government agencies, and communities.

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Elderly Care

Abhijit Ghosh, MPH, Rashmi Gupta, PhD, LMSW

Objectives: The authors reviewed available quantitative and qualitative research on South Asian elderly and their caregivers in the US to report their primary health concerns.

Key Findings: Approximately 10% of the Asian Indian population is 60 years or older. The principal concerns for the elderly include transportation, health care needs, information on eligibility for Medicare benefits, language issues, loneliness, and developing social support systems. With increased number of years serving as a caregiver, there is an associated increase in feelings of entrapment and financial burden.

Recommendations: Service agencies can help South Asian elderly integrate into their communities through educational programming and classes on topics such as financial information, ESL/civics, and voter registration.

Introduction

According to the 2000 US Census, 12.4% (34,991,753) of the total population in the US is 65 years or older.[1] While the 2000 Census age data for South Asians are not yet available, the Census identified 800,795 (7.8%) Asians who are 65 and older.[2] The 1990 Census data show that 1.4% of the total Asian Indian population was 65 years or older.[3] Adding to that the people who have advanced into the 65 and older age range since that Census, now 3.4% of the Asian Indian population is 65 years or older. According to the National Indian American Association for Senior Citizens (NIAASC) 2000 projections, approximately 10% of the Asian Indian population is 60 years or older.[4] Given the significant increases in numbers of South Asian elderly in this country, it is critical that their well-being as well as costs to their caregivers, be paid greater attention.

Who are the South Asian Elderly?

In general, there are two distinct groups of elders. Those who immigrated as older adults, known as late-life immigrants, are often dependent on their adult children for support. Among the second group of older immigrants are those who arrived in the US during the large waves of immigration in the 1970s and 1980s. Having lived in the country for an average of 20–30 years, they are now reaching older adulthood in the US. This group is likely to have substantial growth over the next ten years. The two groups of South Asian elders differ from each other significantly in terms of needs and access to resources.[5]

Elderly Concerns

The United Hindu Cultural Council (UHCC) conducted surveys in Queens, New York and found that there are over 6,000 elderly immigrants from Guyana, the West Indies, and other South Asian countries who have arrived since 1990. According to the UHCC, this growing population needs case management, counseling, and social activities tailored to their special needs.[6]

Table 1: Principal Concerns of the Elderly

	%
Transportation	22%
Health Care	16%
Getting Information on Eligibility for Medicare	14%
Loneliness	11%
Economic Hardship	8-9%
Financial Support	8-9%
Employment	8-9%
Language Problem	8-9%
Lack of Elderly Respect	8-9%
Recreational and Social Activity	8-9%
Nutrition	8-9%

Source: National Indian American Association for Senior Citizens, 1998[6]

Note: Percentages do not add up to 100% because respondents were given the option to select more than one concern.

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A 1998 survey conducted at a conference by the NIAASC in New York summarized South Asian elderly principal concerns. A total of 65 people attended this conference on Asian Indian elderly care and respondents included both caregivers and elderly. Respondents listed their primary concerns, among them were: transportation, health care, getting information on eligibility for Medicare benefits, and loneliness[7] (see Table 1).

In addition, other difficulties and needs included: legal counseling, adult day care, housing, crime, driving cars, use of telephones, handling money, personal care, and rehabilitation. The respondents also expressed their lack of knowlege about the services available through the senior citizen centers and programs as well as the location of these centers.

The seniors and their family members expressed a need for information about senior citizen programs, adult day care, home care services, long term care, Medicare and Medicaid, financial counseling, government subsidized senior housing, adult homes, employment opportunities for seniors, health counseling, crisis intervention, rent subsidy, food stamps, and nursing homes.

Although this survey did not offer self-esteem as a concern that respondents could select, it may be another primary concern for families. Research on the elderly from Atlanta, Georgia shows there may be a relationsip between transportation and self-esteem. According to Raj Razdan, Executive Director and Founder of Senior Citizen's Program located in Atlanta, Georgia, the elderly tend to live with their children and are dependent on their children for transportation.

In another study, Gupta found that the South Asian seniors living in Dallas, Texas need assistance in dealing with bureaucratic agencies such as when applying for Medicaid or senior housing.[8] According to Razdan the principal concerns "are loneliness, lack of

mobility, inadequate health care, and dependence on children who are busy earning bread for the family." The need for the elderly to connect with a community and to feel needed are crucial to maintain self worth at a stage in their lives in the US where "cultural shock could also inhibit their open interactions."[9]

According to Razdan, urgent calls for transportation as well as money for transportation are crucial to the social events organized. If the caretakers are too busy, the eldery cannot attend the events and be a part of the community. Upon attending the events, Razdan notes that the South Asian communities gather by language and region from where they emigrated, suggesting that language is another problem when becoming integerated within a new community.[10]

The 1990 Census provides evidence for the growth of the extended family in the South Asian American community. Almost one in eight Asian Indian Americans were living in an extended family, among the highest proportion for any ethnic group. Within the Asian American and Pacific Islander (AAPI) population, family sizes tend to be larger; 22% had five or more people, compared with 11% of non-Hispanic White families. The 1990 Census recorded 76,341 relatives and 35,226 non-relatives living in Indian households.[11]

Living in such a busy household, lacking the skills to drive a car, or poor English language skills, or not working, may foster loneliness among the elderly. In South Asia, the elderly are accustomed to a social life that enables them to interact with others in their community and thereby manage their lives without being completely dependent on their adult children.[12] Now transplanted to a new culture, living with their children and often serving as baby sitters to their grandchildren, the elderly have an urgent need to develop and maintain a connection to fellow peers. In Dallas, Texas, studies have found that 80% of the South Asian elderly lived within multigenerational households.[13] According to Razdan, the percentages of South Asian elderly living in multigenerational households are similar if not higher in Atlanta.[14] Although South Asian elderly immigrants cannot provide much economic support, caregivers stated that their elderly provide emotional and informational support to them.[15]

Social Integration and Health Status

There are several variables that impact the health status of first generation South Asian immigrants who are generally 50 years of age or older. Looking at other first generation immigrants, a number of risk factors impact the health of this population. They include obesity, physical inactivity, poor nutrition, and other factors such as lower socioeconomic status.[16] In a study of older Indian immigrants in Atlanta, Georgia, Diwan and Jonnalagadda found similar results. Through a telephone survey of 226 respondents who were 50 years and older, high blood pressure, diabetes, and weakness in the arms and legs were the top rated chronic health conditions prevalent in this group. This study found measures of social integration to be associated with the health status of the sample. That is, less social support was associated with greater morbidity.[17]

UHCC conducted a smaller, self-administered needs assessment survey among 138 South Aisan Guyanese seniors in New York City.[18] This survey asked the elderly to choose which statements apply to themselves. They could choose more than one option. Nearly 85% indicated they want information on how to better take care of their health. This suggests that the elderly are looking for medical information to maintain or improve their health. The needs of the elderly included companionship and understanding (see Table 2).

Caregivers' Burden

With the first generation South Asian immigrants staying with their children in the US, the burden of taking care of the elderly

falls upon the caregiver. For the purpose of this section, the caregiver will be defined as someone older than 25 years old who provides substantial care (at least four hours per week providing care and assisting in at least one daily task) for a parent older than 60 years old. Gupta conducted a telephone survey of 150 caregivers within both the Asian Indian and Pakistani communities of Dallas, Texas, to evaluate caregiver responsibilities. 80% of the sample were Asian Indians and 20% Pakistanis.

Four variables determined caregivers' burden: impact on finances, impact on or interruption of work schedule, lack of assistance from extended family, and sense of entrapment. The average age of the caregiver was 42 years old with the elderly being an average of 71 years old. The study findings suggest that with an increase in years of serving as a caregiver, there is greater financial burden, more interruptions in work schedule, and heightened sense of entrapment due to assisting in increased health needs. Clearly, South Asian caregivers feel a responsibility to take care of their parents. However in South Asia, with an extended network of family support and cheap labor availability, it is easier to find help to take care of parents. In the US, the sons and daughters become the caregivers, living in urban areas without an extended family. The high cost of home health services and lack of availability of paraprofessionals who can communicate in the same language impair the ability to obtain services to care for the elderly. Long work hours of many dual career couples and inadequate health insurance coverage also limit complete care giving in the US.

Table 2. Elderly Needs Assessment

Applicable Statements	%
I want to know how I can better take care of my health	85%
Sometimes I would like to talk to someone who understands me	30%
I have recently lost a loved one	30%
I need help to go to places and visit people and places in my community	29%
I have difficulty leaving my house due to my physical illness	14%

Source: United Hindu Cultural Center, 2000[18]

Medicare coverage is available for those who are 65 years old, have worked at least 10 years in a Medicare-covered employment, and are either citizens or permanent residents. If the elder does not qualify for Medicare, insurance can be purchased. However, seeking an appropriate health care policy, and the increased medical costs associated with it then fall upon the caregiver. The costs of purchasing health insurance for an older individual can be substantial, and may not be affordable for many. Plus, the elderly cannot return to South Asia because they are less likely to receive sufficient care there, which fosters an increased sense of entrapment. A caregiver aptly summarizes this feeling by saying, "We would want our parent(s)/in-laws to go back to live (in South Asia) with our siblings for good but when they are in poor health, nobody wants them." According to Gupta, the elderly themselves do not wish to return back to their native countries in South Asia, leaving the responsibility on the caregiver in the US.[19]

In addition to the cost and time of care, caregivers raise concerns about privacy. A son caregiver who married recently had his widowed mother living with him in his apartment. He stated, "We have no privacy with my mother being home all the time. When my wife and I come back from work we need some down time to be close. Don't misunderstand me I love my mother but sometimes you social workers should have her come to live at your house."

Gupta's research shows that caregivers who strongly adhere to the Asian cultural norm "dharma," or duty, perceive a smaller burden in providing care to their elderly. Overall, females are the primary caregivers and perceive a greater burden with a large proportion of

care.[20] Females were more likely to consider nursing home placement when the elderly was mentally confused and incontinent. Caregivers who had good relationship quality with the elderly perceived less of a burden compared with those who did not.

During the 2000 North American Bengali Conference held in Atlantic City, New Jersey, a panel of speakers discussed care of the elderly. The attendees included both caregivers and elderly. The discussion identified several issues. Similar to the findings from the NIAASC, there was a general lack of knowledge among both the caregivers and the elderly regarding available health services. Several caregivers indicated that the key to serving as a caregiver is to work with the parents to develop goals and foster hobbies for the elderly to achieve. This would enable elders to be more independent, leading to higher self-esteem. Key skills the the elderly want to learn include driving, knowledge of health insurance coverage, finance management, and English language skills.[21]

Reaching Out to the Elderly with Community-Based Services

Executive Director Raj Razdan founded the Senior Citizen's Program in Georgia to enhance the lives of South Asian elderly. The program began in 1995 and organizes programs and activities for senior citizens. Among the most popular of events are the Mother's Day luncheon and physician-organized health screenings.

The United Hindu Cultural Council (UHCC), based in New York City, focuses on creating a daytime caring environment and providing support to the South Asian elderly community. Founded by Chan Jamoona in 1998, its services offer the elderly, case management, including individual and group counseling, entitlements and benefits information, translation services, and information referrals; health promotion workshops; yoga andmeditation classes; Indian music and dance events and meals; English as a second language (ESL) instruction, and voter registration. Open on weekdays, the Council serves 200 to 250 seniors per week.

Seniors designed the Senior Citizen Program, based in Dallas, Texas, with assistance from the Social Service Forum of the India Association of North Texas. Seniors meet with each other during monthly meetings and druing tours and picnics. The program also hosts religious and holiday celebrations and off season trips within the US and abroad. Physicians, nurses, dieticians, and social workers also organize health fairs to screen for mental health issues, check blood pressure, conduct mammograms and Pap smears, and assess bone density.

The National Indian American Association for Senior Citizens (NIAASC), based in New York, is an information, referral, and advocacy non-profit organization established by Rajeshwar Prasad. NIAASC has organized a number of conferences on seniors addressing issues such as Social Security, Medicare, Medicaid, and long term care. The NIAASC has worked with multiple organizations in the northeast to consult on the development of senior citizen programs.

Conclusions

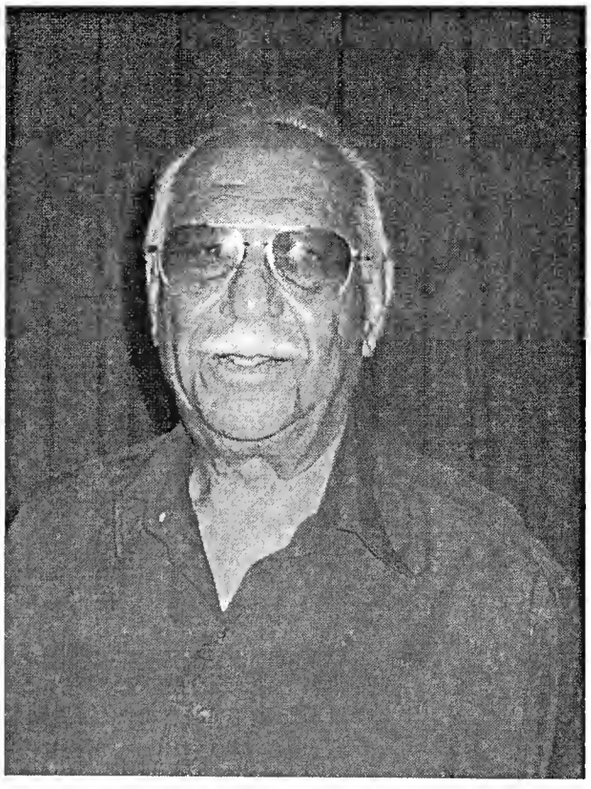
Given the paucity of data on the elderly among different South Asian subgroups, additional data are needed to see if the needs of other non-Indian South Asian elderly differ from Indian elderly. Both South Asian advocates and research studies suggest that health problems and the psychology of integration and immigration are closely linked with elderly health. The responsibility for care falls heavily on the caregiver to support the needs of the elderly. These needs include educating both the caregiver and the elderly on available health care services, providing transportation, and developing reachable goals. For the elderly, the ability to develop and be nurtured by a community sharing similar interests is crucial to fostering healthy behavior. With up to 10% of

the Asian Indian population over the age of 60, the concerns of this growing community will need to be addressed by caregivers and community-based organizations that serve the interests of the elderly.

Recommendations

Caregivers and Community-Based Services

- Provide a support system that is built on traditional values.
- Help develop an elder community through educational programming with classes on topics such as financial information, ESL, and civics.
- Assist seniors in creating their own social network through planning events of interest, such as movie nights and picnics.
- Educate seniors and caregivers alike about available social and health services, benefits, and facilities, such as public transportation and Medicare eligibility.
- Guide seniors in reaching obtainable goals, such as developing a hobby.



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- Create an environment where seniors feel needed and wanted through event programming (for example, holding a prayer service or participating in blood donation drives).
- Understand and advocate for the rights of older immigrants.
- Develop and publicize educational resources and outlets for those in midlife (and those with family members reaching older age) on issues such as life after retirement, long term care options, insurance and assistance programs that can help.

Researchers

- Conduct further research such as surveys examining health indicators for elderly 65 years and older.
- Develop relevant informational material in different languages.
- Conduct further research looking into the female elderly population who have immigrated later in life and are unable to speak English.
- Conduct further research to evaluate potential gender-based differences in the role of the caregiver.
- Evaluate the needs of those who have aged here versus those who have immigrated later in life.

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Lesbian, Gay, Bisexual, and Transgender Health

H. Patrick Mangto, Micah Carvalho, Sapna Pandya, MPH

Objective: The authors conducted numerous interviews and reviewed available research on South Asian Lesbian, Gay, Bisexual, and Transgender (LGBT) health in the US to report on their primary health concerns.

Key Findings: Census data and interviews reveal that South Asian LGBT individuals have a variety of psychosocial concerns including heterosexism, homophobia and internalized homophobia, racism, acculturation, and specific cultural pressures. These concerns create barriers to self-identification and health-seeking behavior, which in turn create specific health risks for the South Asian American LGBT population.

Recommendations: Service agencies and providers themselves can help the South Asian LGBT population by receiving and offering cultural competency training, improving outreach, and establishing psychosocial support mechanisms.

Introduction

Currently, there is insufficient research on the Lesbian, Gay, Bisexual, and Transgender (LGBT) community in the United States, hindering the process of identifying unique health issues facing this community. After intensive advocacy efforts, sexual orientation has finally been included in the Healthy People 2010 initiative, a long term plan to improve the health of the nation put forth by the Department of Health and Human Services. Despite this advance, the lack of attention to LGBT health issues has added challenges to increasing cultural and linguistic competent care for members of the LGBT community. Many challenges exist in assessing the health of the South Asian American LGBT community as well. These challenges originate with the arduous task of defining the South Asian American community overall.

A Hidden Community

Complicating the task of measuring the magnitude of the South Asian community is the multitude of sub-groups that exist within this community. Various sub-groups exist due to differences such as country of origin, generational gaps, gender divisions, and citizenship status; the same differentials exist within the South Asian American LGBT community.

Furthering the problem of definition, there are few population-based studies identifying the mainstream LGBT community in the United States at a national level. Although the 2000 Census collected data on same-sex unmarried partners, it still excluded LGBT individuals not living with a partner. According to the Kinsey Report, roughly 10% of the population is gay or lesbian, although this figure does not appear to be true for most metropolitan, suburban, and rural areas.[1] Furthermore, the recent Census also fails to capture the existence, let alone the accurate size, of the South Asian American LGBT community. Clearly, these issues of definition and visibility, are followed by an even greater difficulty in assessing the health concerns and needed health programs for this population.

Defining the South Asian American LGBT Community

Presently, there does not appear to be an accurate mechanism to gauge the number of South Asian American LGBT individuals in the US. One reason for this is that not all South Asians identify with the terms "gay," "lesbian," "bisexual," or "transgendered," due to barriers such as cultural differences, societal and internalized homophobia, and the dissociation between identity and behavior.[2] These terms relating to sexuality, are predominantly Western concepts for self-identification, and there-

fore may be accepted more frequently among South Asian Americans who were born in the United States or who have acculturated to mainstream LGBT culture. Thus, many *recently immigrated* South Asians who engage in same sex behavior may not consider themselves "lesbian," "gay," "bisexual," or "transgendered." This point highlights the importance of understanding and recognizing differences within the South Asian LGBT community itself; in this case the complications of sexual identity as it relates to degree of acculturation and immigration status.[3]

Due to cultural pressures and expectations that exist in the South Asian community, in many cases, men who engage in same sex behavior are married and have children, as is the case in South Asia itself.[4] There are no studies or data on South Asian women who practice same sex behavior and are married to men. Several Web sites and other resources, however have been established specifically for 'marriages of convenience' between South Asian lesbian/bisexual women and South Asian gay/bisexual men.[5] A 'marriage of convenience' allows these individuals to fulfill their societal and familial duty of getting married, while being able to continue same-sex behavior and/or identity among peers. The existence of these Web sites suggests that there are South Asian women who practice same-sex behavior, and are also married to men and have children.

Homophobia, Racism, and Acculturation: Implications for Mental Health Status and Health Care Access

Many South Asian Americans participating in same-sex behavior or identifying as LGBT may be "hidden" because they have not disclosed their sexual orientation or gender identity, for the fear of losing their immigration status or value to their family. A popular perception in the South Asian Community is that LGBT is a "disease" that primarily occurs within the White, mainstream community. As one young Indian-American gay male states in his published 'coming out' story, "I felt torn between my two identities and forced to choose between being Indian and being gay."[6] Family rejection plays a major part in any LGBT individual coming out or disclosing their sexual orientation or gender identity. This is exacerbated within the South Asian community, as homophobia is coupled with a pressure to acculturate and assimilate with 'the norm.'

Interestingly, some believe that South Asians who have recently immigrated to the US are often more likely to 'come out', since anxiety and fear are reduced when parents and one's community are not physically present. This is illustrated in the fact that the majority of early organizing of LGBT individuals of South Asian origin was done by first generation immigrants, and only recently has the onus been adopted by South Asian Americans who were born or raised in the US.[3]

An important psychosocial issue among LGBT South Asians is the internalization or belief of the very biases that society holds against them. Sometimes these biases come from within the LGBT community itself. For example, many bisexuals feel that mainstream LGBT culture in America is 'binary', in that there exists more support for unambiguously same-sex relationships.[3] This isolates individuals who are not exclusively same-sex oriented to the extent that socially they may feel, as Kamini Chaudhary states in A Lotus of Another Color, like a "dhobi ka kutt, na ghar ka, na ghat ka (a washerman's dog who has no real use, neither at home nor at the washing places)." Not only does this internalization of biases serve as a barrier to accessing services, but there is evidence to support the notion that these psychosocial factors influence high-risk sexual behavior among men having sex with men in the US.[7] The internalization of homophobia that is maintained by the mainstream South Asian American population can serve as a direct health risk. "Internalized homophobia" is a term used by researchers, defined as "hatred against oneself or others for being homosexual."[7] Leading South Asian gay activists in the US believe that the phenome-

non of 'internalized homophobia' is present within the South Asian LGBT community.

Due to damaging misconceptions and misunderstandings about homosexuality that are present within the South Asian community, LGBT individuals may fail to recognize themselves in the "stereotyped gay, lesbian, bisexual, or transgendered person" that Western society has created; a phenomenon that often results in shame, anger, denial, and confusion.[8] Rather than expressing anger or hatred because of this discrimination towards the 'oppressors' (i.e. mainstream society), often the anger may be "redirected at oneself and one's group", as a form of self-hatred.[7] It is speculated by members of the South Asian American LGBT community that this self-hatred is to blame for problems of identification, sexual irresponsibility, apathy (especially in regards to HIV/AIDS due to lack of self-worth or self-esteem[9], in some extreme cases, self-destructive acts (for example, engaging in activities known to increase health risk),[7] and overall oppressive tendencies against oneself and other members of the South Asian American LGBT community.[8]

Because South Asians are minorities in America, the aspects of racism and the pressure for acculturation coupled with internalized homophobia often produce a separate phenomenon known as 'dual-identity conflict' As stated in an article written on sexual behavior of men having sex with men of South Asian origin in Canada, LGBT individuals belonging to minority communities "may feel added shame and guilt", to the extent that their ethnic group condemns homosexuality.[7] This especially may be an issue for those individuals who are less acculturated to the mainstream culture, for example, recent LGBT immigrants from South Asia.

Varying degrees of acculturation are important in understanding the South Asian LGBT community. Since much of the organizing of South Asian specific LGBT associations has been done by relatively recent immigrants,[3] South Asian American LGBT individuals who were born or raised in the US may lack peer support and feel isolated. As Prateek Chaudhary, a young Indian-American gay activist who was raised in the US stated, "We are caught in the middle, since we can't totally relate to the immigrant LGBT South Asian community, nor can we relate to the mainstream White gay culture."[9] This situation leaves South Asian Americans, born and raised in the US, in need of an outlet, a supportive network, and providers that can understand and relate to their specific needs and concerns.

Despite the existence of various health resources for the majority gay culture, some South Asian Americans feel hesitant to access and become fully integrated into this system. Overall, an important consideration is the underlying racism and discrimination that members of minority communities detect and fear.[2] In fact, in interviews conducted with South Asian American LGBT individuals, in particular gay men, several stated that the racism they felt within the mainstream, majority culture was stronger than the homophobia within the South Asian community.[3]

Other LGBT communities of color in the United States also face such 'multiple oppression' forces—the combination of racism and homophobia. Minority gay activists feel that perhaps racism is more strongly felt simply because it is a more visibly observed marker of oppression.[3] Incidences in which South Asian American LGBT people experience hostility, neglect, or more blatant racism, combined with the scarcity of networks they can relate to have caused many LGBT South Asian Americans to be reluctant to enter the mainstream gay culture. Mr. Chaudhary explains, "...when South Asian [gays and lesbians] decide to join White [gay and lesbian] groups, we choose to shed our [South Asian] identity."

However, the decision to not access the majority gay culture may have dangerous health outcomes. Researchers have found that accul-

turation to the mainstream gay community may reduce high-risk sexual behavior because it improves minority LGBT access to gay-positive messaging that might combat self-hatred, AIDS-related information, psychological support centers, and legal resources.[7]

Specific Health Risks and Barriers to Health Care Access

Access to health care education, prevention and treatment poses one of the largest obstacles to the LGBT community, and the unique diversity of the LGBT community provides one of the greatest challenges in accessing quality care. Many LGBT people face documented structural, economic, personal, societal, and cultural barriers when they attempt to access health care.[10-16] Provider bias against LGBT individuals and cultural barriers to accessing health care are well documented.[17-24] As many LGBT individuals are hesitant to disclose their sexual orientation, sexual behaviors, or gender identity in fear of a negative response from their provider, preventive screenings or other appropriate services may not be provided.[25-27] Additionally, blatant homophobia exhibited by providers including reluctance or refusal to provide care and discomfort or disdain of someone who is LGBT adversely affects a patient's right to health care.[28-31]

Specifically, health insurance plays a critical role for the ability of an LGBT person to access health care, and it is likely that South Asian LGBT individuals face similar barriers to obtaining insurance as LGBT people in the general population. At present, same-sex couples are at a serious disadvantage to opposite sex couples as most insurance companies and employers do not provide same-sex domestic partnership benefits. According to the Women's Health Initiative, an analysis of the insurance status found that lesbian and bisexual women were significantly more likely to be uninsured than heterosexual women. As many as 10% of lesbians were found to be uninsured and 12% of bisexuals compared with 7% for heterosexual women despite the fact that lesbian and bisexual women were more likely to have attended graduate school and be in managerial positions.[32] The National Lesbian Health Survey fond that lesbians who were younger, unemployed, in school, poor, and/or African American were all more likely to be uninsured.[33] The Urban Men's Health Study, based on a random household sample of men in Census tracks with a high number of gay men in San Francisco, New York, Los Angeles, and Chicago found that 16% of men who have sex with men were uninsured. Additionally, 13% had no health care provider at all.[34] Transgendered individuals have the highest uninsurance rates. In a 1997 study of transgendered individuals living in San Francisco, 52 percent of the 400 transgendered people surveyed were uninsured.[35] This trend is supported by the Washington Transgender Needs Assessment Survey which found that 47 percent of the study participants lacked any form of health insurance.

In a health care setting, denial or silence is maintained for fear of a breach in confidentiality, and a leak of the information to parents and/or community members. Often, concealing one's sexual identity leads to LGBT people receiving inappropriate or substandard health care. South Asian lesbians and bisexuals never or rarely access any health services, similar to heterosexual South Asians and other Asian American and Pacific Islander (AAPI) women. For example, many South Asian gay men refuse to test for HIV or sexually transmitted infections (STIs). First generation immigrants are especially concerned that if they test positive, it will impact negatively on their immigration status.[36]

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Providers may refuse to give care after a person has disclosed their sexual orientation or gender identity, or incorrectly assume the person must also be HIV positive because of the medicalization of the LGBT identity. In one case, a South Asian man went to visit his new health care provider when his company changed health plans. Since it was the first visit, he disclosed that he was gay. The provider immediately put gloves on while taking notes, and asked the man if he was HIV positive. The client told the provider he was not. The provider then asked if he knew about safe sex. The client answered yes and told the provider that he was aware of the risk factors of his population. The provider stated that it was good for him to be knowledgeable of safer sex practices, however, he would require proof of his serostatus before he would provide any services. The client explained that he was negative and that he was recently tested. Nevertheless, the provider ordered an HIV test, which was not confidential, since it was part of other screening that the new insurance required.[37] This is a clear example of prejudiced substandard care where sexual orientation is confounded with HIV status.

Rupa Ratnam

Like heterosexual South Asians living in the United States, many LGBT South Asians are recent immigrants and although some speak English as a second language, many do not speak English at all. These individuals face cultural and linguistic barriers to health care, preventive care, and educational information about well-being and sexual health, since there are few culturally and linguistically appropriate services that specifically focus on this population.[38]

In many instances when LGBT individuals approach a provider, it is assumed that if they are sexually active, they should also have tests for sexually transmitted infections (STIs). For many South Asian lesbian women, providers assume when a woman says she is sexually active that it is with a member of the opposite sex. In one case, without the client's consent, the provider performed an STI test and wrote her a prescription for birth control pills.

Only a few medical schools include seminars on providing care for LGBT people and often these courses are simply one-day seminars as opposed to comprehensive curriculums on providing care for different communities. The importance of culturally competent care is essential to providing high quality services to South Asian LGBT individuals. Confidentiality is critical to any health care provider/patient relationship but even more important when it comes to treating an LGBT individual. Indeed, in many cases, when a patient discloses their sexual orientation or gender identity in a health care setting, they face blatant discrimination from their provider which inevitably affects the quality of care that is given.

LGBT Youth

Lesbian, gay, bisexual, and transgender youth face an enormous amount of pressures in school, among peers and with family. The role

of isolation and coming to terms with one's sexuality or own gender identity can create a great deal of stress regardless if a young person is in a supportive environment or not. The 1995 Massachusetts Youth Risk Behavior Survey (MA YRBS) revealed that 48% of lesbian, gay, and bisexual youth who were coming out had five or more alcoholic drinks in the past 30 days in comparison to 33% in non-lesbian, gay or bisexual identified students. Additionally, 58% of lesbian, gay or bisexual youth who were coming out used marijuana in comparison to 31% in non lesbian, gay or bisexual identified students.[39]

Reducing Barriers to Health Care

The decision to improve one's health is often directly related to the social justice aspect of minority LGBT communities; as people become empowered and overcome the oppressive effects of racism, homophobia (both internalized and externally realized), and dual-identity conflicts, the resources of the majority gay culture become available to them. Acculturation into the mainstream gay community would be most effective if coupled with an attempt to integrate gay-positive messaging, AIDS-related information, psychological and legal support into ethnically appropriate, and even South Asian-specific centers.

For the AAPI population in general and in the South Asian communities in particular, linguistic competency also plays an essential role in providing quality care. With over 100 spoken languages among the AAPI community, the issue of linguistic competence is critically important to those who do not speak English. If language services are not available, adequate care cannot be provided.

However, while cultural competency of providers is paramount in attending to the needs of the South Asian American LGBT community, the benefit of having physicians of South Asian descent provide health care to these individuals is still to be determined. In interviews completed with South Asian American LGBT individuals, many stated that they would definitely not disclose their sexual identity or even sexual health queries to a physician who was South Asian, for fear of homophobia and that he or she would disclose their identity to their parents and community.[2]

Increasing LGBT Health Information and Research

Without large public support, knowledge of LGBT health has advanced at a slow rate. Heterosexism and homophobia are major obstacles related to research and increasing knowledge of LGBT health issues. Many researchers find it difficult to leverage funding from public resources for research initiatives focusing on the South Asian American LGBT community due to a lack of interest or desire to fund such projects that lie outside of mainstream public health research. LGBT public health researchers often must rely on qualitative data and case studies as justification for research on the LGBT community as there are no quantitative data yet available. In many cases, researchers are penalized for not using quantifiable data to justify research studies and not allocated funding, thus hindering the building of a solid quantitative knowledge base from which future studies can be based. Methodology also presents serious challenges in regard to designing studies that best reach the LGBT population for accurate results and findings. As Sell and colleagues have shown however, there are many viable ways to sample the LGBT population to yield accurate and unbiased results.[40]

This chapter is in no way a comprehensive representation of the multitude of specific health issues that continues to challenge the LGBT community. For more information please refer to the "Lesbian, Gay, Bisexual, and Transgender Companion Document to Healthy People 2010," funded by the Gay and Lesbian Medical Association and the Health Services and Resources Administration.

Conclusion

The health status of the South Asian LGBT population is still unknown. Despite the few studies available on the overall health of the larger LGBT population, a lack of knowledge regarding the South Asian LGBT population remains. To address this problem, funding is needed from multiple sources and on multiple levels for community-based research initiatives. In addition to government resources, community resources including professional associations and foundations need to be accessed. These resources have the opportunity to fund needed community-based research initiatives that provide baseline information that can be used to guide the development and improvement of health and social services for the South Asian LGBT community.

Recommendations

The following are recommendations for health workers working with LGBT individuals of South Asian origin living in the United States:

- Maintain a distinction between identity and behavior since South Asians participating in same-sex behavior may not always identify with the terms 'gay', 'lesbian', 'bisexual', or 'transgendered' for a variety of reasons.
- Providers treating South Asian LGBT individuals should receive cultural competency training with regard to feelings of guilt, self-hatred dual-identity conflict, internalized homophobia, and making assumptions about HIV status.
- Providers serving the South Asian American LGBT individuals should continue to improve relations with the community. This will ease fears about encountering the combination of racism, heterosexism, and homophobia and make it easier to seek medical care, support, and outreach.
- The research community (including both funding agencies and researchers) is urged to investigate and publish any and all work related to the South Asian LGBT community, despite the scarcity of previous quantitative studies.

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Cancer

Nadia Islam, Naseem Zojwalla, MD

Objectives: The authors reviewed available research on cancer incidence, prevalence, and screening rates and behavior amongst South Asians in the US and abroad.

Key Findings: The limited number of national US studies regarding cancer in South Asians have indicated that South Asians experience higher rates of cancer in the US than in their native countries. Screening rates for cancer in Asian American and Pacific Islanders (AAPIs) are generally lower than other minority groups. Possible barriers to screening include limited cancer knowledge, education, access to health care services, and cultural beliefs and practices.

Recommendations: Epidemiological research about cancer incidence and prevalence must be conducted in the South Asian American community to accurately reflect the burden of this illness in the community.

Introduction: Asian American and Pacific Islander Americans and Cancer

Research conducted in Asian American and Pacific Islander (AAPI) groups in the last decade clearly indicates that the burden of cancer is unequal in these communities. For example, while heart disease is the leading cause of death for all US groups (of all ages), cancer has been the number one killer of AAPI women since 1980.[1] Cancer death rates for AAPIs increased at higher rates than any other racial/ethnic group, with rates for AAPI females at 323% and AAPI males at 276%. The top four cancer sites in all Americans are the lung, colon/rectum, breast, and prostate. While lung and colon/rectum cancers are also the top two cancer sites in Asian Americans, liver and stomach cancer rank as the third and fourth highest cancer sites.[2]

Despite the high cancer burden that AAPIs face, the available data may under-represent or distort the health problems of AAPI subgroups. This is particularly true for South Asian Americans, for whom data on cancer incidence (new cases reported per year) are extremely limited. Some of the problems associated with collecting health data in the South Asian community include: 1) controversy regarding which communities are included under the title of "South Asian;" 2) the relatively recent growth of this community in the US; and 3) the belief that South Asians are part of a "model minority" and therefore have a better health status than other minority groups.

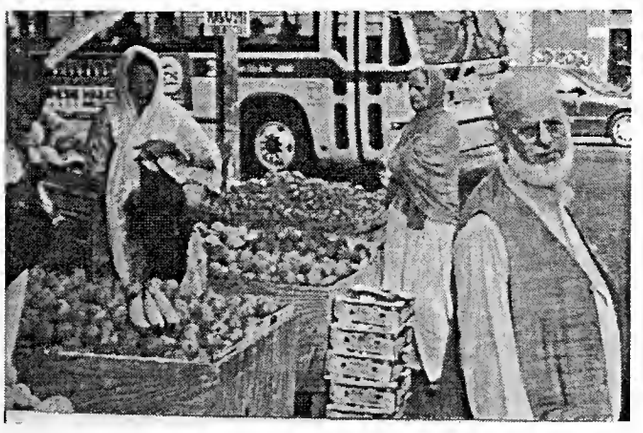
South Asian Cancer Epidemiology

As the majority of South Asians residing in the US are first generation immigrants, with most having immigrated since 1960, it is important to take into account rates of cancer in South Asian countries as well as in the South Asian Diaspora. For example, in India it is estimated that 806,000 persons will develop cancer in the year 2001. This comprises almost 10% of the population. About half the cases among men and one fifth of cases among women pertain to cancer sites mainly affected by tobacco use. Overall, about one-third of cancer in Indians pertains to tobacco related sites. The most common cancers among men are of lung and bronchus, stomach, esophagus, oral cavity, pharynx, larynx and rectum. Cancer of the breast and then cervix are the most common cancers found in women, with oral cavity, esophagus, ovary, and stomach being less common.[3]

Most of the cancer studies in South Asians residing outside of South Asia have been done in England or Canada. Interestingly, these studies have found that South Asians experience higher rates of cancer in England than in their native countries. South Asians in England have higher rates than South Asians living in South Asia with respect to the number of can-

cer sites, including lung cancer in males and breast cancer in females. It is important to note, however, that these South Asian cancer rates were lower in England's South Asians than the average rates in the overall English population. On the other hand, rates of oral cancer were significantly higher among South Asians in England than in the general population.[4] Similarly, various international studies have found that South Asian immigrants are at a high risk for oral cancer due mostly to high rates of chewing tobacco and paan use.[5-8]

The majority of data regarding cancer rates in South Asian Americans are collected under the umbrella category of Asian American and Pacific Islanders. For this reason, it is important to analyze US cancer-related data within this overarching category. In California, where the majority of cancer research in AAPI communities has taken place, breast cancer rates have increased about 15% among women of Asian American and Pacific Islander ancestry from 1988-1997. AAPI women have the second highest risk of developing cervical cancer after Hispanic women. Possible reasons for these increased rates of cancer in US AAPIs include changes in dietary, lifestyle, environment, occupational, and genetic factors.[9] Furthermore, migration studies have documented that AAPI women's risk of breast cancer increases up to 80% after they migrate to the US. This finding indicates that AAPI women lose a protective factor in their migration from their home country. Unfortunately, scientists have not yet identified this protective factor.[10]



Oisika Chakrabarti

The limited number of national US studies about cancer in South Asians has indicated findings similar to those in England. In the US, a recent study compared the rates of breast and colon cancer to the rates of these cancers in India. Findings show that the risk of developing breast cancer and colon cancer are higher in US Asian Indians than Indians residing in India. However, the study also indicated that Asian Indians are at lower risk than US White Americans.[11]

Cancer Screening Practices in South Asians

National studies have found that screening rates for cancer in AAPIs are generally lower than other minority groups. A study of screening practices of 6,048 Asian American and Pacific Islander women in the US demonstrated that 29% of women over the age of 50 had not had a mammogram within the past two years, and 27% of women over age 18 had not had a Papanicolaou test (Pap smear) within the past three years.[12]

The California Cancer registry indicates that both African American and White men are more likely than Asian men to have been tested for prostate cancer, and Asians with lower incomes were even less likely to have been tested. Similarly, the registry indicates Asian women are less likely to have had mammograms than their White counterparts, and although Asian women are at greater risk of developing cervical cancer, they are less likely to receive routine screening than African-American and White women.[9] Screening practices for various cancers among South Asians, particularly among women, have also been found to be lower than other populations. A survey of 57 South Asian women over 40 years of age in Canada showed that only 12% practiced monthly clinical breast exams. In addition, 49% had undergone one clinical breast exam during their lives, and 47% had had a mammogram within the past year. More than half (54%) of the women stated that they did not know very much about breast cancer.[13] In Canada, low rates of cervical cancer

screening were found to be related to acculturation and education.[14] Studies in England have also found that there is a lack of awareness about the risk factors and signs of oral cancer, in both men and women, and that betel-quid (tobacco) chewing continues to be a common habit in the population.[5-8] In summary, research in the South Asian community has found that barriers to screening include limited cancer knowledge, education, and access to health care services, as well as cultural beliefs and practices.[13-15]

Cancer Programs and Research in the US South Asian Community

There is a large void of cancer research, education, and awareness in the South Asian American community. However, there are some organizations and institutions in the US that have begun to focus on cancer in the South Asian community. The American Cancer Society (ACS) has established South Asian units in several areas across the US, including New York, New Jersey, and Los Angeles. These units have developed breast and colorectal screening programs that are offered to the community free of charge and in a culturally appropriate manner. In addition, ACS provides educational materials, information, and workshops to the South Asian community in various South Asian languages and at community events.

The first national cancer research initiative for the Asian community is AANCART, the Asian American Network for Cancer Awareness, Research and Training. AANCART is a National Cancer Institute (NCI)-funded project committed to addressing the issues of cancer education and research in the Asian American community. AANCART's goals include: 1) to build a robust and sustainable infrastructure that will increase cancer awareness, research, and training among Asian Americans in four targeted regions (San Francisco, Los Angeles, Seattle and New York); 2) to establish partnerships between AANCART and other entities that will promote greater accrual of Asian Americans in clinical and prevention trials, increase training opportunities for Asian Americans, and develop pilot projects; and 3) to formulate and implement grant-funded research to reduce the burden of cancer among Asian Americans.

The New York site of AANCART is focusing on the needs of the Korean and South Asian communities of New York City. In 2001, NY AANCART conducted a health needs assessment of the community that included questions on health access, health perceptions, preventive health behaviors, and cancer screening beliefs and practices of South Asians in New York City. Over 100 needs assessment surveys were completed at various locations and community-based events in Queens and Manhattan.

Preliminary data highlights the lack of cancer screening and education in South Asian communities. The mean age of respondents was 46 years of age with 57% of surveys completed by women (total N=174). 49% of respondents reported having no health insurance and 19% reported a positive family history of cancer. Regarding knowledge and attitudes towards cancer, 16% reported that they believe cancer is contagious, 43% believed that eating certain foods can cause cancer, 34% believed that cancer is a matter of fate, and 48% felt that cancer is a topic that should not be discussed. Almost one half of respondents (48%) worried about getting cancer. Of the women surveyed, 28% reported never receiving a Pap smear and 37% never received a mammogram.[15] In comparison, according to the 1997 Behavioral Risk Factor Surveillance System, 7% of US women and 18% of AAPI women have never received a Pap smear and 23% of US women and 14% of AAPI women have never had a mammogram.[16]

Conclusion

It is important that organizations and institutions that serve Asian Americans recognize the growing South Asian American population's cancer and general health needs. Cancer is often not considered a primary health

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concern for South Asians, due to the high incidence of heart disease and diabetes in the community. However, the small amount of research that has been conducted in the US South Asian community indicates that cancer is a growing concern, particularly in regards to screening practices and beliefs.

Recommendations

Researchers and Community Advocates

- Conduct epidemiological research regarding cancer incidence, prevalence, and mortality among the South Asian American community to accurately reflect the burden of this illness in the community.
- Research efforts have been most successful in the South Asian community when done in conjunction with the efforts of community-based organizations (CBOs).
- Consider that the community may not view cancer as a primary concern. For this reason an emphasis on risk factors, many of which overlap across illnesses, should be the focus of research when conducting initial intervention studies in this community.
- Pursue educational and outreach efforts in conjunction with the efforts of CBOs already in place. In addition, CBOs should be involved in the development of these efforts from the beginning.
- Conduct educational efforts regarding cancer screening for men and women in a culturally sensitive manner. For example, women of many South Asian communities may not be comfortable discussing matters of the breast in an open area.
- Employ the ethnic media such as newspapers, television, and radio as a vehicle to spread cancer awareness messages.

Clinicians and Health Care Providers

- Ensure that physicians have access to trained medical interpreters for their South Asian patients, covering the diverse spectrum of South Asian languages. Physicians should consider using AT&T telephone translation services when an actual interpreter is not available.
- Educate patients on the importance of screenings and direct them towards free or low cost screening facilities where available. Many recent South Asian immigrants do not view cancer screenings as a priority for several reasons, including a lack of insurance or a lack of understanding regarding preventive health.
- See that male physicians have a female nurse practitioner or a referral list of female physicians who would be able to provide these services. Sometimes South Asian female patients feel discomfort, embarrassment, or have religious restrictions regarding male physicians performing Pap smears or clinical breast exams.

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Cardiovascular Disease

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Objectives: The authors reviewed available literature on South Asian cardiovascular health in the US and other countries to report on cardiovascular disparities and health concerns.

Key Findings: Asian Indian populations appear to be at high risk for heart disease compared with other ethnic groups (nearly three times the rate was seen in US dwelling physicians compared with the Framingham offspring study). Some research demonstrates high rates of cardiovascular disease among other South Asian groups, although the data is sparser. Specific lipid abnormalities as well as high rates of an endocrine problem known as metabolic syndrome are part of the picture, but diet, physical activity, tobacco use, and stress mechanisms need to also be elucidated.

Recommendations: Research specific to South Asian populations living in the US needs to be conducted. Prevention strategies, including recommendations on screening, dietary modification, physical activity, and treatment modalities, need to be tested and implemented to reduce the high rates of heart disease in this population.

Introduction

Cardiovascular disease (CVD) is the primary cause of mortality among Asian Indians in the US. Most of the available published research on CVD among South Asians has been conducted in countries other than the United States.[1-3] Those studies that have been done in the US have investigated almost exclusively persons of Asian Indian descent, or have assessed a specific type of risk such as lipid status or fasting insulin status.[4] For the purposes of this review the focus is primarily on Asian Indians due to the paucity of data among other South Asian groups. Where data are available on groups from specific geographic origins, the group's country of origin is noted. Available data from the United Kingdom (UK) do demonstrate differences in disease rates and risk factors among various South Asian groups living in Great Britain,[5,56] so it cannot be assumed that all South Asians have similar risks for cardiovascular diseases.

National level surveys are currently inadequate for assessing risks or health status in specific Asian subpopulations either due to the aggregation of multiple ethnic groups into the socially constructed category Asian American and Pacific Islander (AAPI) or due to small sample sizes. Similarly, state Behavioral Risk Factor Surveillance Systems (BRFSS) often do not obtain information on specific AAPI subpopulations. Population-based surveys of South Asians living in the US have not been conducted with sufficient rigor to provide generalizable data about coronary heart disease risk factors.

Little is known about overall health status, health-related behaviors such as diet and physical activity, and access to and use of health care services within the South Asian community living in the US. First generation Asian Indian immigrants to the US have a much higher prevalence (percentage of cases in the population) of cardiovascular diseases compared with other Asian populations and non-Hispanic Whites.[6] In the only published study examining this, 1,688 Asian Indian physicians and their family members (n=1,131 men and n=557 women) were studied. The age-adjusted prevalence of myocardial infarction or angina among Asian Indian male physicians was 7.2% compared with 2.5% in the Framingham Offspring Study, a longitudinal study of Caucasian residents of Framingham, Massachusetts. Rates were similar between Asian Indian women and the women from the Framingham study.[6]

It is unclear whether all South Asians living in the US are at higher risk for coronary heart

disease, although studies in the UK which have included other South Asians, such as Bangladeshis and Pakistanis, indicate other South Asians also have higher than average cardiovascular risks.[5,7-9,56] Heart disease is the leading cause of death for Asian Indians aged 45–64 years, with 38.7% of all deaths among Asian Indians attributable to diseases of the heart.[10] This source, drawn from National Center for Health Statistics (NCHS) mortality data, does not list mortality data on any other South Asian population. One study of six ethnic groups in California, using death certificate data from 1985 to 1990, found that while all cause mortality was lowest for Asian Indians, age-standardized death rates for coronary heart disease (CHD) were similar to several other ethnic groups (258 deaths per 100,000 in *Asian Indian men* compared with 280 for *all men*, and 110 per 100,000 in *Asian Indian women* compared with 139 per 100,000 in *all women*). While persons of Bangladeshi, Pakistani, and Sri Lankan origins are identified on the death tapes used for this study and were included by the author, the Census data the author used included only Asian Indians in the denominator (which could make standardized mortality rates higher than the true rate). Age-specific proportional mortality rates of coronary heart disease among Asian Indians were higher, however, than for any other group studied.[11]

Other researchers have shown that standardized mortality ratios for CHD are consistently higher among migrant Asian Indians compared with other populations.[12] Age-adjusted stroke death rates among California dwelling Asian Indians were slightly lower than the overall state stroke death rates in 1990[13] (21.2 deaths per 100,000 population, compared with 28.8 deaths per 100,000 for California's overall population). This finding is similar to Wild's analysis of stroke deaths from 1985 to 1990 which showed the standardized mortality rates and age-adjusted death rates from stroke were highest for African-American, lower for White, and lowest for Asian Indian (compared with five other ethnic groups studied).[11] While little appears on vascular diseases outside of the heart disease among South Asians, many authors have suggested that atherosclerotic processes ("hardening of the arteries") are accelerated,[12] that function of the lining of arteries is more likely to be abnormal even in healthy Asian Indians,[23] and that such endothelial dysfunction may contribute to vascular disease processes including CHD.

In addition to the lack of data on death rates and disease prevalence, there is little information about how programs can best address health promotion and chronic disease prevention to improve health. Similarly, there is minimal information on how to tailor cardiovascular prevention interventions to the unique languages, cultures, and histories of South Asians. Recommendations on dietary and lifestyle modification for Asian Indians have focused on reductions in use of saturated fats, ensuring regular exercise, and decreasing caloric and carbohydrate consumption.[14] However, design of culturally tailored interventions for the larger South Asian community and testing of such recommendations have not appeared in the literature.

Risk Factor Epidemiology among South Asians

Asian Indian migrants, as a group, appear to be at risk for CHD despite the relatively healthy lifestyles reported in Enas' Asian Indian physician study.[15] Pakistani and Bangladeshi migrants to the UK also have high rates of CHD, while risk factor profiles differ. One UK study on risk factors found that Indians

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were the most physically active, Pakistani and Bangladeshi persons were less likely to drink alcohol, Bangladeshi men were more likely to be smokers, and Pakistani and Indian men ate more fruits and vegetables daily.[5] Another UK study indicated higher rates of self-reported ischemic heart disease among Pakistanis and Bangladeshis as compared with Asian Indians, and suggested that some of this increase was related to differences in socioeconomic position.[56] One study from Canada found that South Asians (including Asian Indian, Pakistani, Sri Lankan, and Bangladeshi) have a higher prevalence of cardiovascular disease, but neither the morbidity statistics nor the risk factor profiles were delineated by specific South Asian subpopulation.[57] In contrast, there is very little information on risk factors among South Asians in US studies.

Coronary heart disease is prevalent among Asian Indians despite fewer traditional risk factors, such as tobacco use, hypercholesterolemia (high cholesterol or other abnormal fats in the bloodstream), high blood pressure, high dietary fat intake, low physical activity levels, and family history. The combination of genetic predisposition and broad changes accompanying Westernization could help explain this higher risk. In Enas' study, many persons were vegetarian; in one survey, physical activity was far above the US average,[16] and smoking was comparatively low.[14] However, there is speculation that diets high in tropical oils are common and it is known that some of these oils are very high in saturated fatty acids.[17] A combination of diets high in tropical oils with diets high in use of butter and ghee (clarified butter) could potentially cause atherosclerosis.

Lipid Abnormalities

Lipid, or fat, abnormalities contribute to the high rate of CHD among South Asians. These abnormalities include low levels of high-density lipoprotein (HDL) cholesterol, high levels of low-density lipoprotein (LDL), elevated triglyceride and lipoprotein (a) levels, and insulin resistance.[14,58,59] Insulin resistance syndrome, which consists of high insulin, abnormal lipids, and visceral ("apple-type") obesity, is more prevalent among Asian Indians living in the UK.[9] This syndrome contributes to diabetes mellitus (specifically, the non-insulin dependent form of diabetes). Lipoprotein (a), a small fat particle, is also the most powerful independent risk factor for the occurrence and recurrence of myocardial infarction and early death in men under 45.[18] In a study of 1,150 subjects from seven ethnic groups in several countries, mean lipoprotein (a) levels among Asian Indians in Singapore were two times higher than those of all other ethnic groups, with the exception of Black Sudanese persons. Effects of high lipoprotein (a) are magnified in the presence of high LDL (the "bad" cholesterol), or high total cholesterol (TC) to HDL ratio (TC/HDL).[19] Genetic research on lipid disorders represents another key area for designing methods for risk modification, including potential pharmaceutical intervention. Evaluation of specific interventions with statins or other lipid modifying drugs are needed, and some of these are in progress.[15]

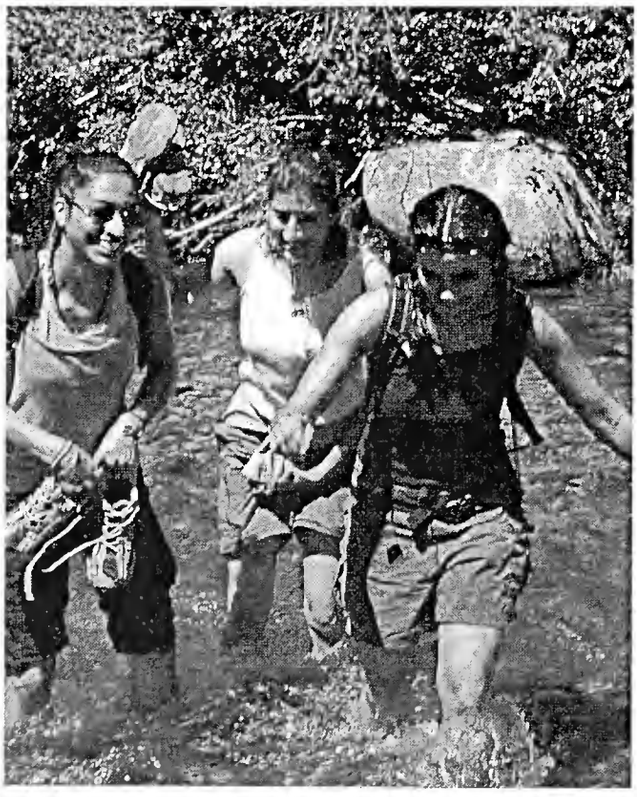
Two relevant candidate genes involved in the regulation of HDL cholesterol and triglyceride metabolism are the APOAI and APOC3 genes. APOAI encodes apolipoprotein A-I, which plays an integral role in reverse cholesterol transport.[20] Underexpression of APOAI leads to diminished reverse cholesterol transport, which would increase CHD risk. Overexpression of APOC3 results in high triglycerides and lower HDL cholesterol,[21] both of which increase the risk of CHD.

To evaluate a potential molecular link between the hyperinsulinemia and the abnormal lipid profile often observed in Asian Indians, researchers at the University of Maryland Medical System studied two known gene polymorphisms, T-455C and C-482T, within the insulin response element of the APOC3 promoter. A promoter is part of a gene that is involved in its regulation for a specific function. A response element in this case is a site on the promoter that is involved in metabolic regulation of insulin.

The prevalence of both the T-455C and C-482T polymorphism was evaluated in 99 Asian Indians (mean age 45.5 ± 12.3 years, 69% men). The APOC3 promoter polymorphisms (T-455C and C-482T) were frequently encountered in young Asian Indians, especially in those with a family history of premature coronary heart disease. This polymorphic region has been associated with the loss of insulin down-regulation and dyslipidemia.[22]

Other Biological Factors

While lipids, and lipoprotein (a) in particular, appear to be specific risk factors among Asian Indians, other recent research has focused on abnormalities of the lining of the blood vessels (vascular endothelial function) among even healthy Asian Indian men[23] and elevated serum homocysteine, among other metabolic abnormalities.[24,25] The SHARE study in Canada demonstrated that South Asians' excess cardiovascular disease prevalence could be partially attributable to elevated levels of plasminogen activator inhibitor-1 (PAI-1) in addition to elevated lipoprotein (a).[57] Also, a study in the UK found that elevated levels of C-reactive protein (CRP) were associated with risk factors for cardiovascular disease, although this study did not study CVD directly.[60] These studies may need to be replicated in US dwelling persons of South Asian descent and particularly in women. Each of these abnormalities suggests new potential intervention strategies, such as folate or vitamin B-12 supplementation for high homocysteine, that need to be examined.[24]



Colleen Cronin

Diet, Body Habitus, and Risk For Metabolic Syndrome (Insulin Resistance Syndrome)

Dietary intake cannot be assumed to be similar among all Asian subpopulations or even among South Asians migrating from different countries or regions. Asian Indian men who had immigrated to the US at least 10 years earlier had low mean body mass indexes (BMIs) compared with Americans but still were at risk for elevated triglycerides (another fat in the body) and total cholesterol, whether vegetarian or non-vegetarian.[16] Definitive dietary differences which persist post-migration have been demonstrated in studies of different religious groups from South Asia.[26] Existing diet instruments must be modified to reflect foods commonly eaten in South Asian cultures,[16] to allow for comparisons between men and women, and to specifically compare dietary intake among recent immigrants with more acculturated migrants to the US and with second (and later) generation persons. Specific nutritional components such as folic acid and Vitamin B-12, along with other micronutrients, must be assessed by accurate collection of dietary information across all of those groups.

Asian Indians have been noted in other studies to have higher rates of insulin resistance and central obesity (obesity around the center of the body), although these studies have generally been conducted in other countries.[5,27-29] Asian Indians also have been shown in at least one study to have a higher percent of body fat at normal BMI[29] and to have higher conicity (central fat distribution) at the same BMI as comparison groups.[29] In Bhopal's study of South Asian migrants to the UK, obesity was more common among Indian

and Pakistani persons. Obesity was more common among Indian and Pakistani women compared with Bangladeshi women.[5] High waist to hip ratios were more common among Pakistani and Bangladeshi women and about four times more common in South Asians than in people of European origin in that study. Waist circumference is associated with lipid disorders, Type 2 diabetes, and hypertension across many ethnic groups.[30] High central obesity is a key risk association of the metabolic syndrome, also called Syndrome X or insulin resistance syndrome. Metabolic syndrome is a marker of risk for both future diabetes and future ischemic heart disease.[31] Diabetes has been shown to be elevated in a number of studies of South Asians.[6,9,27,42] In addition, a recent study in the UK showed that South Asian children of normal weight were more likely to be insulin resistant than a comparison group of Caucasian children[61] (see Diabetes Chapter).

High birth weight and low birth weight are risk factors for diabetes and have been associated in some studies with obesity later in life. Low birth weight has also been shown to be associated with high rates of CHD in other populations.[32,33] Studies have also shown that low birth weight is more common among Asian Indians in several countries, including the US.[34,35] Extensive research on the fetal origins of metabolic syndrome and non-insulin dependent diabetes is taking place in Great Britain, the United States and in Pune, India. New research on body habitus, or shape, among US dwelling Asian Indians is in progress.[36]

Tobacco use

Tobacco use among Asian Indians living in the US appears to be lower than for other Asian Americans (8.7% reported smoking).[37] Due to small sample sizes in the National Health Interview Survey (NHIS), producing these statistics requires aggregating three years of NHIS data and the collective sample size still does not allow for additional analysis to compare rates between males and females. A recent survey of South Asians in Northern California showed 12% of respondents had ever smoked.[41] However, according to personal communication with California medical providers, recent immigrants from Asian countries are sometimes adopting smoking as they assimilate, so it remains important to monitor tobacco use in this group.

Asian American youth may also be smoking more than their parents, based on observations that overall tobacco use among Asian American and Pacific Islander women is often higher in the US than in the native countries from which those persons immigrated.[38,39] In particular, a recent trend has been observed among US youth, including youth descended from India and its Diaspora communities, to smoke small, flavored, hand-rolled cigarettes known as beedies or bidi.[40] The CDC also incorporated a question on bidi use into the 2001 Behavioral Risk Factor Survey.

Does Acculturation Predict CHD risk?

Higher rates of CHD are seen in Asian Indian migrants in a number of environments (Canada, UK, Fiji, and Mauritius), almost regardless of where those migrants settle.[2,42,43] One very significant finding in the SHARE study from Canada was that, after taking into account traditional and novel biological risk factors for CVD, "South Asian ethnicity" itself remained a strong and independent predictor of CVD.[57] As with any group undergoing a migration process, South Asian migrants may undergo acculturation stress, but acculturation may impact cardiovascular risks among different groups in different ways. Japanese men show decreasing rates of hypertension upon migration but higher rates of coronary heart disease.[44] The differences cannot be accounted for entirely with traditional risk factors such as smoking or serum cholesterol,[45] raising questions that social and cultural factors may also contribute to CHD risks in this immigrant group in the US.

Similarly, Mexican immigrants, but not Cuban immigrants, have increasing rates of obesity with acculturation.[46] There are a number of life

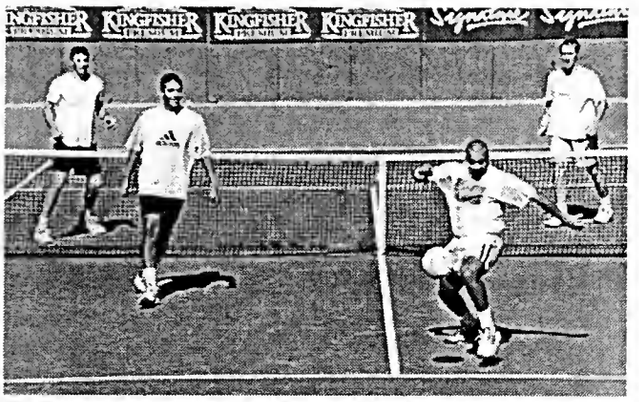
stressors that occur among recent immigrants to the US which are not unique to migration to America.[47,48] The impact of post-migration stress on the cardiovascular system is relatively unstudied. Some diabetes researchers have called the initial post-migration period the upward curve of assimilation, representing adoption of behaviors that may increase risk factors for CHD and diabetes as groups assimilate.[49]

At a minimum, the risks of rapid assimilation could include adopting smoking/tobacco use, adopting dietary changes that promote the intake of highly processed, high sodium, and high fat food products, and diminishing levels of physical activity. On the other hand, there is a downward slope of post-migration stress as well, during which groups who have prospered post-migration begin to adopt healthier behaviors such as exercise and use of preventive medical services, which may also have a role in reducing CHD risks. Use of health services by immigrants begins to approximate the native US population after about 10 years of residency in the US.[50] It is not clear where the present American population of South Asian origin falls on these acculturation curves, as earlier waves of immigrants were often better-educated than more recent waves.[62] Another factor of interest is environmental and occupational stress and whether coping varies among assimilated and less assimilated immigrants. In a Whitehall II study of psychosocial factors in heart disease, South Asians described higher depression, lower job control, and lower social support at work compared with Caucasians or Afro-Caribbeans.[63] It has been shown that Asian Indian immigrants vary from persons in the country of origin in specific beliefs that relate to stress and coping.[51] Qualitative research conducted in preparation for the survey portion of Cardiovascular Risk Factors among South Asians revealed that not all persons even related to the word "stress" but preferred the terms "pressures" or "tensions."[41]

It remains unknown whether cardioprotective factors occur among immigrants who assimilate more slowly or among those who live in an agricultural-based economy as compared with persons migrating here to assume professional positions. Concepts of life stressors, discrimination, and coping can be measured across groups to assess differences that may exist[52] in order to determine if such differences help explain the known linkages between CHD and acculturation. Instruments measuring these concepts must be modified for specific ethnic groups. Research into biochemical pathways that might explain how stress impacts CHD risks is ongoing. Some researchers hypothesize that allostatic load, the chronic excitation of neurohormonal pathways via the hypothalamic-pituitary axis,[53] increases central obesity and thus, might elevate risk for metabolic syndrome.

Screening and Treatment Recommendations

While the higher rate of CHD among South Asians is fairly well established, screening and treatment recommendations do not reflect this higher risk. Health providers need information on which to base recommendations for earlier screening (lipid and glucose abnormality testing) and on interventions that promise to address those risk factors that are modifiable. At a minimum, it seems prudent to screen patients with family histories of early onset heart disease, to treat lipid abnormalities when detected by advising therapeutic lifestyle change (TLC), including dietary changes (such as substituting canola oil for more saturated fats), and regular physical activity. Recommendations on the best pharmaceutical approach for non-responders to lifestyle intervention can be found in recent reviews such as the National Cholesterol Education program's ATP-III recommendations.[64] If lifestyle changes are not effective in lipid profile modification after three months, the addition of a therapeutic agent may be considered if the patient has multiple risk factors. Generally, statin drugs have shown to be the most effective in lowering cholesterol and LDL. Some authors have recommended this group of drugs be used as first line therapy in patients with elevated cholesterol levels, particularly for elevated LDL.[54,64]



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Treatment should be tailored for each patient. No randomized controlled trials have compared the different lipid lowering agents for treatment of lipid disorders among Asian Indians but some authors believe that niacin is very effective at lowering lipoprotein (a)[54] and gemfibrozil (alone or in combination with niacin)[55] may be useful in modifying low HDL. Physical activity increases may raise HDL and improve insulin metabolism.

Once adequate baseline health information is available on the South Asian people in the US, prevention and treatment intervention trials can be undertaken for outcomes. Rigorous intervention evaluation will allow recommendations to be issued for primary prevention, screening for risks, and early treatment of affected individuals.

As one of the groups most impacted by cardiovascular diseases in the world, and as one of the most rapidly increasing groups of Asian American immigrants to the US, the cardiovascular status of South Asians is ignored at great cost, both in terms of lives lost and in costs to the health system that are potentially avoidable with earlier screening and intervention.

Recommendations of Researchers

- Collect additional baseline data using population-based surveys on the current health status of Asian Indians and other South Asians living in the US, including an assessment of traditional and novel CHD risk factors.
- Tailor instruments so that they are culturally relevant to collect the best information possible in the areas of diet, physical activity, and tobacco usage, among others. In addition, the best information will be yielded if surveys are conducted in the most common South Asian languages in order to prevent the bias introduced when only the most acculturated and educated segment of the South Asian community is surveyed using an English-only instrument. An English-only bias contributes to the "model minority" stereotypes that continue to plague health policy advocacy efforts for Asian American and Pacific Islander communities in general and the South Asian community in particular.
- Incorporate information on race, ethnicity, and country of origin as well as years of residency in the United States in larger studies of lipid status and genetic markers for lipid abnormalities. Subjects should be drawn from all parts of the country. One mechanism for this would be to conduct a multi-center study.
- Pair survey information with biomarkers (similar to NHANES or CARDIA) to help separate contributions of genetic factors, tobacco, diet, physical activity, access to health services, and acculturation to risks and prevalences of cardiovascular diseases of all types, but particularly CHD. The information collected will also assure better intervention designs that target South Asians for prevention strategies.

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Diabetes

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Objectives: The authors reviewed available data on the prevalence of diabetes in the South Asian population and report on the significant differences in morbidity and rising rates of disease in this group.

Key Findings: Immigrant South Asian populations appear to be at high risk for developing diabetes. Despite evidence that changes in environment affect the progression of the disease, there is a lack of data from the United States, with most studies originating in England. Diabetes in South Asians may differ in its progression, with a higher degree of complications than in other groups. There are also cultural aspects which may hinder usual approaches to care.

Recommendations: With a South Asian immigrant population that has a high burden of disease in the United States, both health care workers and community services should address the unique and changing needs of this group.

Introduction

Diabetes prevalence (percentage of cases in the population) is rapidly increasing throughout the world. This trend is strongly related to lifestyle and environmental changes. Diabetes presents a burden to both the individual and the society. Medical expenditures for people with diabetes have been shown to be two to four times higher than for those not affected by this condition.[1] This increased economic burden is not only related to the health care costs but also to the indirect costs due to loss of productivity from disability and premature mortality. These costs are preventable and interventions in the form of education and aggressive treatment for those at risk are needed.

Diabetes mellitus (DM) is characterized by an increased blood glucose level that leads to multiple abnormalities of the circulatory system and results in widespread organ damage. Diabetes may appear in children (generally called Type 1 or insulin dependent DM) or in adults (generally called Type 2 or non-insulin dependent DM) although adults can have Type 1 and children can have Type 2 diabetes. Type 2 DM is a major public health issue as it comprises nearly 90% of all diabetics and is increasing in prevalence worldwide. This form of diabetes is been related to obesity, sedentary lifestyle, and genetics. Immigrants have been shown to undergo dietary and lifestyle changes that may alter the course of the disease and its development.[2] South Asian populations in particular have a high burden of disease as well as a poorer outcome once it develops.[3] Rising rates of diabetes in the United States highlight the need to identify and treat at-risk groups.[4] According to the Centers for Disease Control and Prevention (CDC), there are about 16 million people in the United States who have diabetes, of which as many as five million cases remain undiagnosed.

Diabetes in South Asians

Diabetes poses a rapidly growing threat to South Asians worldwide. The World Health Organization has suggested that there is a global epidemic of Type 2 diabetes in adults. Diabetes and impaired glucose tolerance increased by a factor of five to seven among immigrants particularly.[5] Studies done on South Asians in the UK,[6,7] Fiji,[8,9] and some other countries[10,11,12] have shown a high prevalence of diabetes among these immigrants (see Table 1). South Asians reported diabetes as an extremely common disease compared with other inhabitants of Hague in the Netherlands.[13]

Children in South Asia have a low incidence (new cases reported per year) of Type 1 diabetes, but migrants to the UK have similar rates to the native population.[14] Additionally,

Table 1. Prevalence of Type 2 Diabetes in Immigrant South Asians

Country	Prevalence (%)	Year	Reference
Trinidad	21	1977	Miller et al[10]
Fiji	25	1983	Zimmet et al[9]
Mauritius	20	1990	Dowse et al[11]
Singapore	25	1990	Hughes et al[12]
UK	19	1991	McKeigue et al[2]

the overall prevalence of Type 2 diabetes is going up among children in the US, with an increase of 33% in one decade.[15] This rise cannot be explained by genetics alone; environment too plays a key role. One prospective study conducted in the UK took all new cases of diabetes over a 10-year period and suggested that environmental factors are more important than genetics in the South Asian group.[16] Enas showed a diabetes prevalence of 7.6% among Asian Indian physicians and their families in the US compared with 1% for the Framingham Offspring.[17]

Data on the prevalence of diabetes in South Asians show much higher rates in urban than rural areas (see Table 2). This predisposition may be caused by lifestyle changes such as lack of physical activity and change in diet. Such differences are also seen within India itself, between urban and rural areas.[18] Some investigators have reported differences in rates of diabetes within particular South Asian communities, where a higher proportion of Bangladeshi (26.6%) and Pakistani (22.4%) males had diabetes, compared with their Indian counterparts (15.2%).[19] One review of diabetes prevalence in India found it has risen from 1-2% in previous studies to 3-8% in recent years among all adults. The review also found an increase in adults who migrated from rural to urban environments.[20] These results suggest that South Asian immigrants to the United States may be at high risk for developing diabetes, but there is a paucity of data in this area.

Complications of Diabetes

DM and its sequelae account for much avoidable morbidity in people of South Asian origin. Not only does diabetes affect immigrant South Asians more than other populations, but the disease development and complications differ from other groups. It has been noted that high mortality in South Asians from coronary heart disease may not be accounted for by traditional risk factors applied to other groups.[21] Similarly, diabetic South Asians may have higher all-cause mortality and an increased risk of cardiovascular disease (CVD) despite control of other risks. One 11 year survey found that deaths from circulatory disease accounted for 77% of all deaths in diabetic South Asians compared with 46% in diabetic Europeans.[22] This predisposition towards CVD was increased in the younger population. This emphasizes the urgent need to reduce diabetes risk in this vulnerable group.

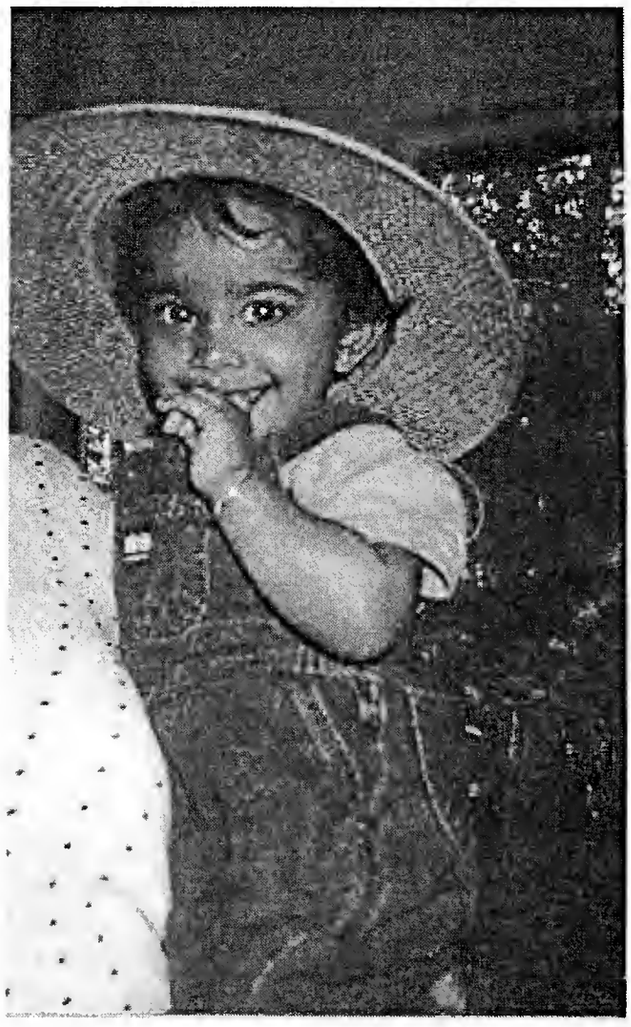

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Table 2. Urban Rural Prevalence of Diabetes in Indians

Region	Year	Prevalence (%)
Urban Chennai	1992	18
Rural Tamil Nadu	1992	3

Source: Ramachandran et al[18]

Diabetes may also behave differently in select groups. Some studies show that the traditional association of obesity with glucose intolerance may not apply to South Asians. Two prospective studies in India, with a total of 251 subjects, did not associate obesity with glucose intolerance or diabetes, despite the high number of patients in this population who were diagnosed as such.[23,24] However, central adiposity may be higher among Asian Indians[25] and there is an increasing rate of insulin resistance and central accumulation of weight (or adipose) in India.[26] These are markers of the metabolic syndrome. A recent English study also demonstrates higher rates of insulin resistance among South Asian children even at normal weights using current BMI standards for age.[27]

South Asians studied in England seemed to have an earlier onset of diabetes than other groups, diagnosed up to 10 years earlier, and had higher glucose levels requiring control with more medications and more use of insulin.[28] South Asians compared with Europeans appeared to have similar control of sugars after treatment,[29] and yet complications in organ damage are still more common in South Asians. One study found South Asians twice as likely as similarly treated Europeans to develop signs of kidney damage from their diabetes.[30]

Barriers to Treatment of Diabetes

Addressing the needs of the diabetic South Asian population may be difficult when public perception of the problem is minimal. Access to these communities is difficult due to language difficulty, cultural barriers, and lack of aggressive treatment programs. Many patients do not understand the term 'diabetes' and those who do may not know of methods to reduce their risks or prevent the disease.[31] One study in the UK found that 28% of South Asians interviewed did not understand the term, and two-thirds of respondents stated they did not know enough to prevent it.[32] A review article from 1995 concluded that a multidisciplinary approach to the prevention of diabetes was necessary.[33] Socioeconomic level, suboptimal use of health services, education, and cultural communication barriers all play a role in making South Asians more vulnerable to this disease. Concerted efforts towards reducing these barriers are needed to reduce the disease burden in this group.

Recommendations

- Measure the extent of diabetes in the South Asian community in the United States with additional research.
- Estimate diabetes prevalence by the different ethnic groups within the South Asian population so that the risk for subpopulations is not underestimated.
- Encourage medical personnel to consider South Asian patients as being high-risk for diabetes.
- Raise awareness of this public health problem among health care workers with the South Asian community and spread information among the population with focused outreach programs.

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HIV/AIDS

Linda L. Groetzinger, AM

Objectives: The author reviewed available research on HIV/AIDS among South Asian Americans, including cultural issues related to sexuality and family formation, to describe limitations of current data and themes enabling and impeding future work.

Key Findings: Epidemiological data on HIV/AIDS among South Asian Americans is almost nonexistent because this population is usually included in the category of Asian American or Asian American and Pacific Islander. With nearly four million cases of HIV in India, traditional cultural assumptions about sexuality must be challenged, including among South Asians in America. A few localized surveys of HIV/AIDS knowledge, beliefs, and behaviors, conducted among South Asians in Canada and the US, indicate inadequate knowledge, denial, risky behavior, and a powerful role of community and stigma as potential and actual impediments to HIV prevention.

Recommendations: For all levels of HIV/AIDS data collection and reporting, South Asians need to be identified specifically and accurately. Health promotion and social service agencies must address the knowledge and attitudinal needs of this community in a culturally appropriate manner, if South Asian Americans are to be protected from the HIV/AIDS epidemic.

Introduction: Epidemiology of HIV/AIDS among South Asian Americans

The limited data available on HIV/AIDS epidemiology specific to the South Asian American population are variable, inconsistent, and slow to emerge. Therefore, this paper relies heavily on data for Asian American and Pacific Islanders (AAPIs). Discussion of cultural issues in the US is supplemented with literature on Canada, India, and Pakistan.

The AAPI population accounts for slightly less than 1% of the number of cumulative cases of AIDS in the US, as reported to the Centers for Disease Control and Prevention (CDC) through 2000,[1] although this group represents approximately 4.2% of the US population.[1,2] In 2000, 380 new AIDS cases were reported for the AAPI community, making the rate of new infections 3.4 per 100,000 in 2000.[1] The cumulative known death total from AIDS among AAPIs is 3,055, of whom 2,724 were male and 331 were female.[1]

The disproportionately low reported incidence (new cases reported per year) and prevalence (percentage of cases in the population) may suggest that this population has been relatively spared, and that a study of risk prevention within this population could offer insight into protective factors. Although this possibility must be considered, expansion of the epidemic in South Asia should raise concerns regarding this mobile population. Furthermore, it is critical to evaluate the accuracy of the available data.

It is usually agreed that AAPIs are often undercounted in health surveys, which raises questions of accuracy in data.[3-5] AIDS case-reporting forms may misidentify people's race and ethnicity, either by relying on misleading information on place of birth or through reliance on inaccurate sources, such as medical record data or the subjective impression of a reporter. Undocumented immigrants are particularly likely to be undercounted. Many barriers to seeking health care in general exist for immigrant communities, including lack of linguistic or cultural accessibility, lack of insurance, lack of awareness of resources, stigma of health issues, and distrust of social services.[3,6] Barriers to seeking HIV testing include stigma, fear of breaches in confidentiality, and US immigration policy.

Furthermore, AAPIs are found to have a higher rate of tuberculosis and hepatitis B, both considered co-morbidity factors for

Table 1. Percentages of Asian American and Pacific Islanders (AAPI) among People Living with AIDS, (PLWA) Compared with Percentages of AAPI in the General Population, for Selected States, 1999.

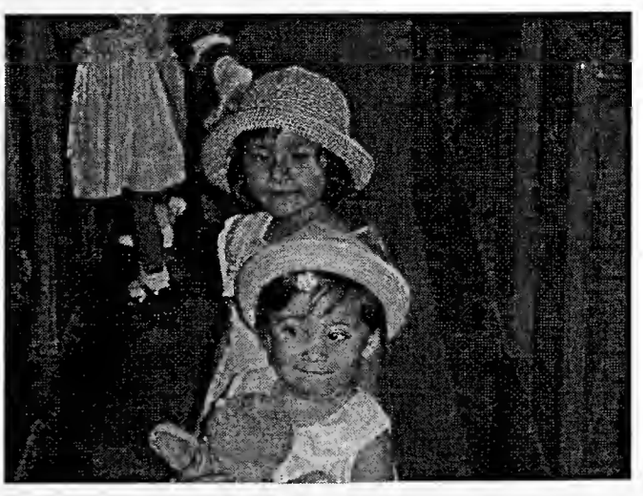
State	AAPI % of Population	Total Number PLWA	AAPI as % of Total PLWA	Total Number AAPI PLWA
Hawaii	50.9	948	23.1	219
California	10.9	45,220	2.4	1,100
New Jersey	5.7	14,678	.5	68
New York	5.5	54,971	.7	387
Maryland	4.0	9,821	.1	13
Massachusetts	3.4	6,975	.8	56
Virginia	3.6	5,725	.6	36
Illinois	3.4	9,889	.7	71
Texas	2.6	23,624	.4	99
Pennsylvania	1.8	3,717	1.2	45
Florida	1.7	34,074	2.0	70

Source: Centers for Disease Control and Prevention, 2001[13]

HIV/AIDS, as well as higher rates of pneumocystis carinii pneumonia (PCP), an opportunistic infection associated with AIDS. How these interactions function statistically and in terms of susceptibility to infection is not fully established, but the rates raise concern that AAPIs may be seeking HIV testing late. Thus, it is more difficult to monitor progress of the epidemic in this population and more difficult for AAPIs to benefit from needed interventions.[7,8]

Distribution by Racial Categories and Geography

Through December 2000, 5,728 cumulative cases of AIDS had been reported among AAPIs.[1] In 1999, the CDC reported that 2,579 AAPIs were living with AIDS, almost 1% of the 317,368 persons living with AIDS in the US at that time.[9] Because HIV is inconsistently reported by states, it is not possible to know the HIV rate in the national population, but it is important to note that the AIDS data are suggestive of HIV infections beginning up to 10 or more years previously.[1]



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Through December 1998, "five states, which account for 63% of the AAPI population in the US, reported 78% of the [AAPI AIDS] cases: California (45%), Hawaii (12%), New York (15%), Texas (3%), and Washington (3%)."[10] Table 1 elucidates this data. In 1997 almost 60% of AAPI AIDS patients were foreign born, but Chin observed in 1998 that this percentage of foreign born was declining in New York City.[11] It is also not known whether exposure occurred in the US or elsewhere. Most of reported AAPI AIDS cases that year were in New York City, San Francisco, and Los Angeles,[12] where large numbers and proportions of Asian Americans live.

Most studies fail to provide data on HIV/AIDS for subgroups of AAPIs. Only California, Hawaii, New Mexico, and Pacific Island jurisdictions report ethnic subgroups.[14] A few innovative studies and reports, focusing on selected populations and issues, highlight the need for more population-specific data.[5,15-26]

The available data relate to diverse measures, making generalizations and comparisons impossible. For example AAPIs, who account for 11.1% of California's population in 1998, accounted for 2.5% of the reported AIDS

Table 2. Male Adult/Adolescent AIDS Cases by Exposure Category, Comparing AAPI Population with US Totals, Cumulative Through December 2000

Exposure Category	US Total		AAPI Total	
	Number	%	Number	%
Men who have sex with men (MSM)	355,409	56%	3,562	72%
Injecting drug use (IDU)	140,536	22%	258	5%
MSM and IDU	48,989	8%	184	4%
Hemophilia/ coagulation disorder	4,907	1%	70	1%
Heterosexual contact	29,460	5%	198	4%
Blood transfusion, components, or tissue	4,971	1%	112	2%
Unknown	51,179	8%	586	12%

Source: Centers for Disease Control and Prevention, 2001[1]

cases.[27] In 1998 in New York City, the 79 reported AAPI AIDS cases accounted for 11% of all new AIDS cases that year; in Los Angeles, 6 cases accounted for 1%, and in San Francisco, 11 cases accounted for 2% of the total new reports. Such divergent figures cannot be generalized to national trends, but demonstrate why national data are inadequate for understanding the impact of the epidemic in diverse localities.

Table 3. Female Adult/Adolescent AIDS Cases by Exposure Category, Comparing the AAPI Population with US Totals, Through December 2000

Exposure category	US Total		AAPI Total	
	Number	%	Number	%
Injecting drug use (IDU)	52,991	41%	110	16%
Hemophilia/ coagulation disorder	283	0%	6	1%
Hetero-sexual contact	52,520	50%	346	49%
Blood transfusion, components, or tissue	3,806	3%	100	14%
Unknown	20,504	16%	145	21%

Source: Centers for Disease Control and Prevention, 2001[1]

Distribution by Exposure Categories

Tables 2 and 3 compare the data on HIV/AIDS exposure categories for the AAPI population, demonstrating patterns for the nation as a whole at the end of 2000. The differences suggest a pattern of HIV/AIDS infection in the AAPI community, which mimics the early stages of the epidemic in the US, suggesting that the epidemic may have reached this population later than others, but it is expanding within this population.[12,16]

Two important features emerge from this data. First, among AAPI women, the rate of unknown or unspecified exposure category is higher than for Americans overall, 21% as compared with 16%. In addition, the rate attributed to blood transfusions for AAPI women is 14%, as compared with 3% among the general US population, and 2% among AAPI men. (It should be noted that with the small numbers, the significance of these comparisons is uncertain.) These features suggest the need to gather more information on how the epidemic is affecting AAPI women in different communities. Several possible explanations may be contemplated: AAPI women may know less about how HIV is transmitted, they may be less inclined to believe that their sexual partner/husband could have infected them, they may feel less reluctant to cite blood transfusion as the source than other possible exposure categories, and/or AAPI women may be less effectively interviewed for the information.[17]

Second, a substantial majority of reported AIDS cases among AAPIs were attributed to sexual contact between men (MSM), 72% among AAPIs, as compared with 56% among all US populations. On reviewing studies of AAPI MSM, Sy et al. found prevalence rates from 1.4% to 27.8%, "...depending on study design, means of recruitment, locations used for data collection, and whether participants self-identify as gay, bisexual, or heterosexual."[12]

In 1999 the California Department of Health Services reported 2,284 cumulative cases of AIDS among AAPIs. For 73.2% of these overall and for 80% of males, gay/bisexual contact (G/B) was the reported source of infection, as compared with 70.8% for California overall.[27] California is one of the few states that reports AIDS data by ethnic subgroup: Among the 26 Indian AIDS cases, 16 reported G/B as the source, and among the 10 Pakistani AIDS cases, 7 reported G/B as the source.[27]

Distribution by Age and Sex

Table 4 presents data on the distribution of AIDS cases reported through December 2000, by sex and age at diagnosis, comparing AAPI cases to US totals. In these characteristics, the patterns are similar for AAPIs and for the US population at large.

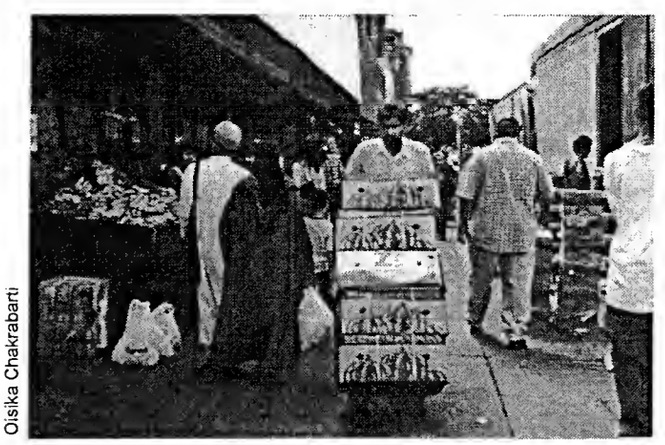
Table 4. AIDS Cases by Sex, Age at Diagnosis, and Race/Ethnicity, US

Sex and Age at Diagnosis	US Total		AAPIs	
	Number	%	Number	%
Male				
0-12	4,571	1%	27	0%
13-24	21,865	1%	199	4%
25-34	224,113	35%	1,711	35%
35-44	253,633	40%	1,949	39%
45-54	98,669	15%	810	17%
55+	37,170	6%	301	5%
Male subtotal	640,022	100%	4,997	100%
Female				
0-12	4,337	4%	24	3%
13-24	9,428	7%	49	7%
25-34	49,691	37%	238	33%
35-44	48,056	36%	242	33%
45-54	15,680	12%	101	14%
55+	7,249	5%	77	11%
Female subtotal	134,441	100%	731	100%

Source: Adapted from Centers for Disease Control and Prevention[1]

HIV/AIDS: Global and South Asian Context

Awareness of HIV/AIDS among South Asian Americans can be stimulated not only by educational efforts in the US, but also by concern about how HIV/AIDS affects their countries of origin. One international public health question is whether and to what extent international mobility, such as travel, immigration, study, and business, can lead to cross-national exposure risk. Additionally, South Asians in the US may play significant roles in financial, charitable, and scientific service to their home countries, and may have political impact in stimulating the international and US response to the AIDS crisis around the world.



Oisika Chakrabarti

Data from the United Nations AIDS Program (UNAIDS) for South Asian countries are presented in Table 5. Of the 36.1 million people infected with HIV worldwide, the National AIDS Control Organization of India (NACO) estimates that almost four million are in India (including only those between ages 15 and 49).[28] The most common mode of transmission is thought to be heterosexual sex (83%), although the full variety of transmission modalities is found.[29] To understand this data, one must consider that sex work has legal restrictions, but is not completely illegal, and that sodomy is illegal and sometimes prosecuted.

In South Asian nations, complacency and assumptions about traditionally conservative behavior regarding sexuality and drug abuse are being challenged by the data and by more recent reports. The NAZ Foundation and the Humsafar Trust have conducted valuable studies on the behaviors of men who have sex with men in India, Bangladesh, and Pakistan.[31-38] Popular Indian news magazines available in the US have published stories about professionals and business class individuals in India whose lives have been devastated by the disease.[30] The same compla-

Table 5. Summary of HIV/AIDS Data for South Asian Region, 1999 and 2000

	Bangladesh	Bhutan	India	Maldives	Nepal	Pakistan	Sri Lanka
Epidemic, Risk of Expansion:	Nascent, High Risk	Nascent, Moderate Risk	Moderate, High Risk	Nascent, Moderate Risk	Concentrated, Vulnerable to Risk	Nascent, Significant Risk	Nascent, Vulnerable to Risk
National Prevalence:	0.02%		1.0%		0.29%	0.064-0.1%	0.07%
Number: (Total: 5 mil.)	21,000		3.86-4.0 million		30,000	70-80,000	8,500

Sources: The World Bank Group, 2001[40] and UNAIDS/WHO, 2001[41-45]

cency and assumptions about "traditional behavior" are beginning to be challenged in the South Asian communities in North America.[19,39]

South Asian Cultural Values, Acculturation, and HIV

Highlighting similarities in traditional cultural forms among South Asian Americans may obscure significant differences, such as group differences based on religion, region of origin, length of time since immigration, as well as individual differences. Yet common features of South Asian culture have important bearing on HIV/AIDS issues for this population, especially when considering public health promotion and health care initiatives.[46]

Defined hierarchies have traditionally structured much of South Asian life. Roles and responsibilities are traditionally set forth for family members, as are responsibilities of families to the community. The individual's identity is, to a large extent, formed by and imbedded in his or her internalization of family and community expectations.[47-49]

Individuals and families hold well-understood expectations of caring for, and being cared for by, each other and the community.[19,49,50] Each individual's behavior, reputation, and action reflect upon the family and the community. In this context, "who you are" is understood to define "what you do." And "what you do" is to be dictated by "who you are." This way of defining individual identity is quite different from the mainstream American values of individuation and self-actualization, implicit in much of public health promotion.[19,51-53]

The prescribed responsibilities of young people include studying, preparing for adulthood, and responding to parents' expectations. Individuation is not seen as one of the goals of adolescence. Parents, when able, extend financial support to children well into adulthood, and adult children expect to provide for their parents. Discussion of sex is discouraged in the home. Marriage is traditionally viewed as a responsibility of all young people to the family and community. Sexual activity is considered acceptable only within marriage; sexual activity before or outside of marriage, or between same-sex partners, is discouraged and kept secret, although these activities have been known in South Asian society, art, and literature, throughout history.[31,34,54-61]

In this context, stigma becomes more than an individual concern. Loyalty, commitment, and fulfilling one's duty are expressed through protecting one's family and community from shame. An individual's fear of being ostracized because of negative, stigmatizing attitudes of one's family and community can be compounded by concern for the welfare of one's family in the community, even concern for the community as a whole.[53] In these ways, the power of external stigma can be further magnified by internalization.

In addition to the role of stigma as a potential deterrent to seeking HIV information, testing, and treatment, the impact of perceived community norms upon individual behavior, in the

context of these traditions, is not well understood.[24] A number of authors have investigated the meaning, in the South Asian cultural context, of men having sex with men, suggesting that such activity may often not be seen as defining one's sexual identity.[31-33,55] Some US-based studies have considered how being gay-identified affects HIV risk behavior, including among AAPI populations, and have found that *not* having a defined gay identity increases risk behavior.[62]

Cultural values supporting strong family and community loyalty, duty, and support can, in these ways, deter individuals and communities from undertaking HIV/AIDS prevention education and from providing support to affected individuals and families.[19] The same cultural values of loyalty, duty, support, and security for family and community can also be powerful in encouraging families and communities to provide preventive education and to reach out to those members who may be affected by illness, or those potentially at risk.

For South Asian Americans, some of the traditional values may have provided some protection from the HIV/AIDS epidemic in the US in terms of population-wide statistics. How this situation may be affected by acculturation for this population is unknown. Data are not yet available, for example, to indicate whether the possible tendency of initiating sexual behavior later is protective, or if a lack of knowledge or beliefs about sexual risk increases risk. In a national study of 5,385 White and 408 AAPI high school students (not identified by subgroup), Hou and Basen-Engquist found, "White students were 2.7 times more likely to be sexually experienced, and 2.5 times more likely to use alcohol or other drugs before sex than AAPIs." They also found however, "there were no significant differences between these two groups in the age of initiating sex, the number of lifetime partners, the proportion of being currently sexually active, ... and condom use behavior."[63]

A study conducted by the National Development and Research Institutes of New York

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found that while the majority of the 165 Asian Indian adolescents surveyed (born in the US) knew that unsafe sex with an HIV-infected individual created a risk of infection, many were not aware of other crucial facts about transmission.[20] In a 1992 survey of 2,026 California high school students, of whom 186 were AAPI, Schuster, *et. al* found that 73% of AAPI adolescents had never had vaginal intercourse, compared with 50% of White, 43% of Latino, 38% of African American, and 48% of other. The AAPI students were also less likely than other groups to have participated in any sexual activity in the past year and were more likely than other groups to have used condoms specifically. They also were more likely to expect parental disapproval for sexual activity.[64]

To the extent that South Asian adolescents experience acculturation stress and family conflict, they may be more vulnerable to engaging in risk-taking behavior, such as alcohol and drug abuse, which in turn can contribute to further risk-taking behavior such as unsafe sexual activity.[21] Thus, neither the stress of the acculturation process, nor the potential impact of becoming increasingly acculturated as a population, are understood well enough to gauge the impact upon HIV risk or protection for South Asian Americans.

Conclusion

Although the strength of cultural traditions may have served thus far to provide some protection from the HIV epidemic for the South Asian American community as a whole, there is no

evidence to support complacency in this matter. There are also reasons to be concerned for the welfare of affected individuals and families within this population. Indeed, stigma and complacency can inhibit realistic surveillance, prevention education, community support, and use of available treatment. Individuals already impacted by the infection, and those who may be at risk, need culturally appropriate and accessible education and services from the South Asian community, from mainstream GLBTQ support systems, and from the general public health community. By building upon the strengths inherent in the South Asian community's particular heritage, it is reasonable to hope that such coordinated efforts may succeed in minimizing the negative impact of the epidemic, both in terms of numbers of infected individuals and in terms of negative social experiences for those most directly affected.

For AAPI communities, there is a public health reality: "Once upon a time, some people believed that Asians were immune to AIDS ... but that has been proven wrong. It's not who you are, it's what you do." A culturally appropriate outreach brochure from one organization working with Asian groups emphasizes, "The Banyan tree is ... a symbol of inner peace and harmony. Its large branches have provided shelter and its deep roots have provided support to travelers and immigrants for thousands of years. Through our Banyan Tree Project we hope to extend the same support and comfort to persons living with HIV/AIDS."[76,77]

Recommendations

The recommendations emerging from this review and work of others fall into four interrelated areas: data collection and surveillance, design of educational, prevention and outreach services, community involvement, and resource allocation.[65] The importance of culturally and ethnically appropriate public health studies, health promotion, and health care services must be recognized at all levels.[66,67] Several organizations and consultations have made valuable recommendations, which should be considered when working on issues of HIV/AIDS in the South Asian American communities.[14,25,26,68]

Data Collection and Surveillance

- The CDC, Heath Resources and Services Administration, the US Census, and all state, territorial, and local health departments should collect and disaggregate data regarding Asian Americans by ethnicity, primary language, nation of birth, and nation of family origin.[14]

- Use standardized definitions and categories for race, ethnicity, and national origin in vital statistics and other health data collected at state, territorial, and local levels.[69]

- Collect data on South Asian Americans intensively in areas where the population is relatively concentrated; over-sampling should be conducted nationally and locally.[26] Although data from such studies may not be reliably generalized to other communities, without them, important data about substantial segments of the population become lost in national averages.

- Ensure culturally acceptable and valid data collection and understand how beliefs may bear on health behavior, risk taking, and risk prevention.[12,12,24,70,71]

Design of Educational, Prevention, and Outreach Services for South Asian Americans

- Test the usefulness of ecological models in which theories and strategies of prevention go beyond the individual to involve families and community.[68,71,72]

- Promote the understanding, through communication strategies, that "AIDS" is an issue belonging to and including the South Asian American community.[65]

- Promote the merits and acceptability of help seeking and of providing support, through both interpersonal and indirect, culturally specific communication and outreach.[65]

- Conduct focus groups to elicit culturally specific experiences of stigma, fears, and

family and community support, as well as views of AIDS specific public health messages.[53,73] Yep recommends, for example, "Use social influence techniques to change and maintain perceptions of condoms as effective, enjoyable and easy to use."[65]

Community Involvement and Resource Allocation

- Organizations serving South Asian communities need to become highly informed and involved regarding HIV/AIDS risks and prevention. They need to foster the expansion of the South Asian tradition of providing support to community members and families coping with illness.

- Involve at least a few HIV-affected individuals to help overcome denial and stigma, with regard to the illness itself and with regard to the behaviors associated with the illness.[74,75]

- Agencies and organizations serving the gay, lesbian, bisexual, transgendered, and questioning (GLBTQ) members of the general population, as well as agencies providing HIV/AIDS services to the general population, need to develop culturally appropriate and inclusive programming for the South Asian segment of their communities.[3,12,72]

- Boards, and decision-making bodies of agencies and organizations doing research and providing service, at local, state, and national levels, must represent the diversity of the communities they serve, including South Asian Americans.

- Allocate resources specifically to the tasks of disaggregated data collection; creating and disseminating linguistically and culturally appropriate educational resources; and providing services, support, and treatment that are both culturally and financially accessible.

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Intimate Partner Violence

Jhumka Gupta, MPH, Ushma D. Upadhyay, MPH

Objectives: The authors reviewed the available literature on intimate partner violence (IPV) among South Asians in the United States and report on the unique socio-cultural issues that women face, including barriers to seeking help.

Key Findings: IPV is of great concern within South Asian American communities, with one study finding 37% of South Asian women experiencing violence in the past year. Particular cultural issues that influence women's decisions to leave an abusive relationship include, duty to family, the "green card factor," and financial dependence. Women who seek out services, continue to face barriers including the "model minority" myth and language differences.

Recommendations: IPV organizations should collaborate closely with South Asian American communities to determine effective and culturally acceptable methods for conducting research and outreach.

Introduction

Intimate partner violence (IPV), domestic violence, spousal abuse, partner abuse, and battering are all terms that refer to abusive behaviors that occur within intimate relationships. Such behaviors typically occur as part of a pattern of abusive behavior and control, rather than as isolated acts of aggression.[1] While IPV can take on a variety of forms, the five most commonly identified types of abuse are: physical, verbal, emotional, sexual, and economic.[2] Violence in intimate relationships almost always consists of more than one or all of the types listed, and the extent of abuse typically increases over time.[3] Abuse is any form of coercion, power, and control—physical, sexual, verbal, mental, or economic—perpetrated on an individual by another, that arises from social relations that may be created within the context of an intimate relationship.[4] While violence is often aimed at men as well, for the purposes of this chapter, we discuss IPV against women because it accounts for the majority of cases.

Epidemiology of IPV among South Asians in the United States

IPV is one of the most serious and widespread public health issues in the United States. Estimates reveal that two to four million women experience IPV each year in the US alone, and IPV may occur in as many as one in four US families.[4] Research on IPV among South Asian families in the US is minimal, however preliminary surveys have found prevalence rates (percentage of cases in the population) greater than the US average, and closer to rates found in South Asia, which are at 30-47%.[5]

Asian American and Pacific Islander (AAPI) women in the United States are grossly underrepresented in prevalence studies of partner abuse.[6] A part of this under-representation can be attributed to racial bias that characterizes traditional research on battered women.[7] For instance, historically, telephone interviews served as a major source of IPV data. However, such methodologies exclude women who may not speak fluent English or do not have access to telephones. In addition, many recent prevalence studies have excluded subjects who could not speak or read English.[1,8,9] The paucity of data on IPV among South Asian American women is also, in part, due to women rarely seeking help outside of their community and a general reluctance of Asian American communities to portray themselves as problematic to outsiders (non-South Asians).[9]

Additionally, the few studies that do exist focus on immigrant and first generation married women. While such studies on the immigrant experience are important, little is known about

the extent of IPV in second generation, unmarried, or same sex partnerships. Now that this generation is expanding in numbers, and the types of intimate partnerships are diversifying, there is a real need to understand how IPV differs in prevalence and in form.

Despite many challenges, several investigators have employed creative and innovative methodologies for pursuing IPV research in South Asian American communities. In 1999 Raj and colleagues conducted a community-based study with 160 South Asian women in the Greater Boston area. This study found that 40% of the surveyed women reported physical IPV, sexual IPV, and/or a need for health services due to IPV, and 37% of the sample indicated some form of IPV during the past year.[10] The Asian Family Violence Report published in 2000, administered by the Asian Task Force against Domestic Violence, found that 44% of South Asian participants surveyed reported knowing a woman who has been abused or injured by her partner. Additionally, many respondents felt that in-laws often played a critical role in "family violence" within South Asian families.[11] Another survey of 94 Indian and Pakistani women in the US found a rate of 48% for experience of lifetime physical abuse.[12] Clearly, IPV is an issue of great concern within South Asian American communities.

Qualitative research has highlighted the interplay of limited research and resources, cultural and linguistic factors, and experiences with immigration collectively functioning to prevent many South Asian American women from seeking help. Still the image that they are passive victims is disempowering and misleading. Mehrotra found in a qualitative analysis that South Asian women experiencing violence often *do* engage in acts of resistance, such as taking money or calling relatives from a phone booth to cope with their situations and to claim a sense of empowerment.[13]

Some studies have also documented how certain cultural values and norms that are patriarchal in nature can influence the form of abuse

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and how South Asian women perceive and respond to a partner's violence. For example, in an exploration of sexual abuse in South Asian immigrant marriages, Abraham documents how traditional ideas of natural male dominance and female submissiveness often lead to the legitimization of rape within marriage. Many men see sexual gratification as a marital right—60% of the 25 women Abraham interviewed between 1991-1993 have been forced to have sex with their husbands against their will.[14] Singh and Unnithan analyzed several cases of wife-burning in the US, a form of lethal abuse. They note that while rare among the general US population, wife-burning has a legacy in South Asian cultures as a traditional form of violence, and is employed by South Asian immigrant perpetrators.[15]

Experiences and Perceptions of IPV among South Asians

The literature is consistent in pointing to several key themes that influence women's decisions to seek help:

- *Duty to Family*: From childhood, South Asian women are typically engrained with a sense of duty to be a good wife and mother. In order to maintain peace within the family, women often are reluctant to speak of their abuse.[16] A 1996 qualitative study which interviewed 12 Asian Indian women who have been in abusive relationships concluded that the women "expressed a strong desire to be true to their culture, which supposedly

Sharmila S. Rao; Courtesy of: Apna Ghar

does not allow disintegration of marriage under any circumstances."[17] Children probably are one of the most important factors in deciding whether to leave an abuser.[18] Such rigid adherence to cultural norms may be gaining strength among South Asians in the United States in the name of "maintaining culture."

- *Saving Face:* South Asian culture often places a great emphasis on "saving face." South Asian American families are often characterized as collective versus individualistic. Thus, women who experience IPV may be hesitant to unveil such information to outsiders out of fear of bringing shame to the family, as well as the community at large.[16] Dasgupta and Warrier found in their interviews that women believed that the community would consider them "disloyal to the culture" if they stopped accepting the abuse.[17]

- *Financial Dependence*: In the South Asian community men typically have been the primary immigrants, whereas women entered the country as their dependents: wives and daughters. In South Asia, women had fewer opportunities than men to receive advanced education and thus, when arriving in the US often have lower incomes than their husbands. They may not be employed at all due to cultural or visa restrictions, leaving them financially dependent on their husbands.[19] Such dependence leaves women vulnerable to additional threats from their husbands, and more importantly with no other means of support, makes it impossible for some women to leave.[4]

- *Isolation:* Many South Asian women in the US face extreme isolation as their family and friends often reside in South Asia and leaving a scarce support system within the US.[20] In her unstructured interviews in the late 1990s with 25 South Asian women experiencing IPV, Abraham explored issues of isolation by spouse, family and friends, and by the ethnic community and other formal institutions. Such feelings of isolation are often exacerbated due to the fact that many South Asian women have had arranged marriages, and thus have come to the US to become wives to men they hardly know. She concludes that, "Isolation, was one of the most painful and disempowering aspects of marital abuse in a foreign country."[20]

- *"Green card factor:"* In many situations women are dependent upon their spouses for immigration status and visa sponsorships. Husbands may threaten deportation as an abusive strategy to maintain power

and control over their wives.[4,21] Many women do not know about the Violence Against Women Act (VAWA), which allows battered spouses and children of US citizens and permanent residents to submit their own petition for alien relative to the Immigration and Naturalization Service and, if approved, to apply for adjustment of status to permanent resident.

In addition to the individual socio-cultural concerns that can discourage women from seeking help, South Asian Americans as well as immigrants face unique barriers within health and social service systems.[22]

- *"Model Minority Myth:"* The "model minority myth" assumes that the Asian American population is a healthy, well-off community that does not require assistance or social services.[23] Much of the South Asian community, as well as society in general, still hold on to the belief that IPV does not exist within their community.[19] Limited data on health conditions, such as IPV and the cultural stigma that surrounds the issue, further contribute to the perpetuation of this myth.[12] Without accurate information, it is difficult to make a compelling argument that a significant problem regarding IPV exists. The dearth of data can be used in a "circular (and negative) manner, serving both to justify the status quo and to perpetuate or 'reproduce' ignorance and neglect of the issue at hand,"[13] resulting in a lack of culturally relevant strategies, interventions, and programs to assist women who suffer abuse.

- *Language Constraints*: Having little or no English-speaking abilities, in a largely monolingual (English-only) service system, has been cited as a major challenge for South Asian American women experiencing IPV.[14]

- *Variations in Communication Styles*: Differing patterns of communication between Western IPV practitioners and Asian American clientele have been reported to hinder effective interventions in this population. For example, while Asian communication styles have been described as indirect and non-verbal, Western communication patterns are characterized as being direct and straightforward.[15]

- *Lack of Resources*: Mainstream shelters have a dearth of culturally-appropriate resources, such as bilingual or bi-cultural staff and foods. Similarly, IPV prevention and educational efforts, as well as batterer programs, are most often not designed with cross-cultural considerations in mind.[16]

To counter these barriers, several organizations and support groups have sprouted nationwide to serve South Asian women experiencing IPV. Some temples, mosques and gurdwaras provide safe spaces for women to talk about abuse and other family problems, and help South Asians in the US preserve the family structure.[18] Over 30 non-sectarian organizations throughout the country provide legal help, shelter, support and counseling to South Asian women using an empowerment approach. They have also contributed to the collective knowledge about South Asian Violence as well as best approaches for advocacy and intervention.[19,24,25] These organizations are more visible and attract both first generation married women and second generation women experiencing violence in non-marital relationships.[19] They work together through coalitions and share experiences at regularly held conferences.[26]

Health care providers have an important role in helping people experiencing violence, as they are often the first to know. Health care providers can learn how to ask about violence in ways that their clients find helpful. They can give women empathy and support. They can provide medical treatment, offer counseling, document injuries, and refer their clients to legal assistance and support services.[5]

Conclusion

In order for IPV to be effectively addressed, outreach efforts must target both mainstream and South Asian American communities. IPV service providers must be trained in cultural competency and incorporate methods for addressing the needs of South Asian Americans (e.g., language, transportation, immigration laws) into existing services. By working closely with South Asian Americans, researchers will

be able to better determine effective and culturally acceptable methods for collecting data and conducting research within this community. Community-wide education efforts must be implemented to target South Asian communities. Lastly, policies that seek to reduce classism, racism, and sexism must be supported in order to promote gender and cultural equity within the US.

Recommendations

- Encourage health care providers to screen for IPV and educate them on the importance of documentation in medical records when treating a person who has been a victim of violence.
- Develop and advocate for effective national public policy and international instruments to improve the lives of women and their children in situations of violence.
- Produce culturally and linguistically accessible resources and provide technical assistance to better respond to the specific issues faced by women in situations of violence.
- Increase public awareness of the complex issues facing women in situations of violence and the obstacles that they face because of language and culture, immigration law and other barriers.
- Organize networks and coalitions to strengthen and coordinate efforts to assert the rights of women in situations of violence on the local, regional, national, and international levels.
- Collaborate closely with South Asian American communities in order to determine effective and culturally acceptable methods for conducting research and outreach.
- Support research on the extent of IPV in second generation, unmarried, and same sex South Asian partnerships.

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Mental Health

Meera Rastogi, PhD, V. Suthakaran, MA

Objective: The authors reviewed available quantitative, qualitative, and theoretical research on South Asian mental health issues in the United States.

Key Findings: The mental health research revealed several principal concerns. Due to cultural differences, intergenerational conflict, feelings of isolation, and experiences with prejudice South Asian Americans are under substantial stress. These stressors contribute to high rates of suicide among Asian Indians and a tendency to somaticize one's problems.

Recommendations: Mental health providers can help the South Asian community by providing outreach programs at culturally-consistent sites (e.g., temples and mosques), involving the individual's family in treatment, addressing acculturation and identity issues, and utilizing a multidimensional approach to counseling.

Introduction

Although current mental health literature on Asian Americans has emphasized the importance of studying specific subsets of the Asian American population in psychological research,[1,2] little research has been done on the South Asian American population. In fact, South Asian Americans have been noted as the "forgotten Asians"[3,4] since they are commonly excluded from the Asian American mental health literature.

Common Issues Faced by South Asian Immigrants and their Children

Immigrant Issues. Leaving one's home and coming to the United States can be an exciting time in an immigrant's life. However, along with the excitement comes extreme stress when adjusting to a different way of life.[5] Initially, many immigrants believe that they will return to their home country after a few years; however, as time passes it becomes more difficult to return home because they become adjusted to their new life and community.

In addition to leaving one's loved ones and relatives, immigrants are faced with an enormous amount of stressors. In fact, international students have more psychological problems than US students.[6] These problems could have a number of sources: language barriers, lack of social support, cultural differences,[6] and racism.[5,7]

In addition to these problems, immigrants also face adjustments in gender roles, which may also cause conflict within a family.[5] Several authors[8,9] have noted these conflicts that arise when immigrants raise their children in the United States. Often times conflicts arise when individuals try to integrate their experiences with their cultural identity. Psychology has studied acculturation, this process of developing an identity after one emigrates to a new country.

Acculturation. The oldest definition of acculturation is the process of change which results as two cultures come into contact with each other.[10] Berry's[11] model of acculturation has been widely applied to Asian Americans.[12] Berry expanded on Redfield, Linton, and Herskovits'[10] definition by adding that "acculturating individuals are likely to hold attitudes towards the ways in which they wish to become involved with, and relate to, other people and groups they encounter in their acculturation arena."[13]

Berry's[11] model of acculturation posits four outcomes as a form of coping with two cultures coming into contact: separation, marginalization, assimilation, and integration. This model reveals the interaction between one's own culture and the dominant culture. The *separatist* identifies only with one's own ethnic culture. Second, the *marginalized* group consists of those who feel uncomfortable in both

the host and their own cultural groups. Third, the *assimilationists* are those individuals who identify with the host's culture. Finally, *integration* occurs when someone combines both her own and the host culture. While immigrants face identity issues described in the acculturation process above, the second generation, South Asians born or raised in the United States, has to negotiate their own unique challenges.

Second Generation Issues. Second generation individuals report enormous difficulty in trying to balance both South Asian and American cultures. Although Agarwal[8] found that many of these difficulties were resolved in college, she also found that many second-generation individuals felt there was a huge cultural gap between themselves and their Indian parents. In addition, the second generation described the pressure they received to pursue certain careers in order to please their parents. Furthermore, second-generation daughters reported that they encounter more expectations from their parents because of their sex.

Other researchers have found that the children of Asian Indian immigrants experience confusion and conflict.[3,5,9,14-16] Das and Kemp,[5] Sodowsky and Carey,[15] and Yao[17] assert that children of South Asian immigrants are raised within two cultures, South Asian and American. Being raised in two cultures creates confusion and conflict between Asian Indian parents and Indian American children.[15,16]

Sodowsky and Carey[15] hypothesized that the children of these immigrants may feel more of an anomaly in America than their parents. They argue that these children feel out of place in both Indian and American contexts as they may be more sensitive, withdrawn from their surroundings, and feel divided between their Indian and American sides. Psychologists have developed an ethnic identity model to explain the process that second generation South Asians may go through in developing their own ethnic identity.

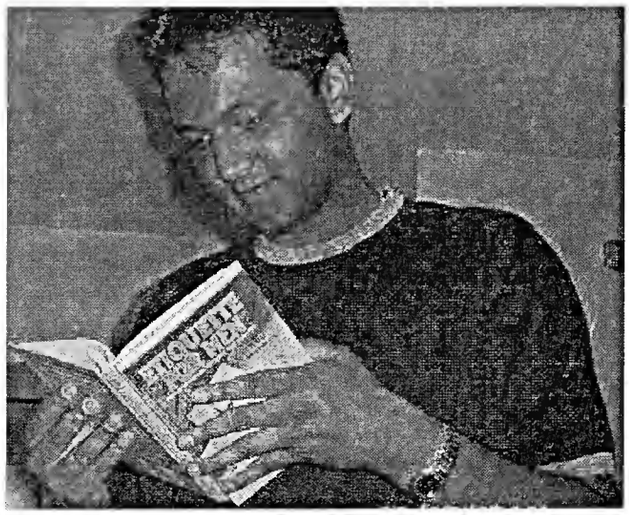
Ethnic identity model. Racial/ethnic identity development is based on the perception that a person shares certain racial/ethnic values that are similar to a particular group.[18] Most research on ethnic identity development throughout one's lifetime has focused on African Americans[19] and is unclear about the development period being studied (e.g., adolescence versus adulthood).

Atkinson, Morten, and Sue[20] designed a general model of ethnic identity development called the Racial/Cultural Identity Development Model (R/CID).[20] They argue that this model applies to all racial/ethnic minorities. The R/CID has five stages: conformity, dissonance, resistance and immersion, introspection, and integrative awareness. The participant moves from identifying solely with the dominant culture while being ashamed of one's own ethnicity to viewing both the dominant and one's own ethnicity positively.

Counselors are able to apply the R/CID Model (Atkinson, Morten, and Sue)[20] to clients in order to understand how the client's beliefs will be exhibited. The R/CID is developmental in that counselors are encouraged to help clients reach the final stage, known as the integration stage. When clients can regard both their own culture and the dominant culture positively, then they have achieved the highest level of development.[21] Therefore, the model also assumes that individuals progress through the various stages over time. People who progress to the highest stage, *integrative awareness*, are believed to be the most well adjusted.[22] Dissimilarities in the experiences and struggles in identity formation between the first and second generation contribute to intergenerational conflict.

Intergenerational Conflict

Several studies have explored South Asian American family issues. Specifically, three studies[8,9,16] have examined the intergenerational conflict between Asian Indian immigrants and their children. Agarwal[8] and Segal's[9] data revealed major areas of conflict



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between the two generations: issues of control, communication, prejudice, and expectations of excellence. Wakil, Siddique, and Wakil[16] found that parents adapted to the changes in their children. However, the parents were unwilling to change their core values.

Segal[9] argued that the Asian Indian community in America is unprepared to deal with these conflicts. It appears that while the parents are struggling to maintain their own identity,[14] the children are often confused about defining their own identity.[15] Both generations are too busy struggling; therefore each has very little support to offer the other. Importantly, Segal[9] reported that communication between these two generations does not exist. Communication is usually one-sided: The parents speak to the children, but the children are not permitted to respond. As a result, the adolescents do not share their personal problems with their parents.

Academic/Career Decisions and the Pressure to Succeed

A major source of the intergenerational conflict is the expectation for high achievement within the South Asian immigrant community. It appears that the drive to succeed has been passed down to the second generation. Success is expected because the behavioral norm is that "all Indians do well."[9] Researchers have found that the second generation is largely comprised of successful engineers and physicians and that these career choices were made for them by an older brother or their parents.[8,16,17] These researchers also found that most of the children willingly complied with their parents' wishes. It appears that following the wishes of the family matches the cultural norm of maintaining peace within the family.[2]

In Rastogi's doctoral dissertation[23] on the experience of Indian American women, all of the participants reported pressure to seek a high-status position. Thus, it is important for mental health professionals working with these South Asian American clients to examine the pressures they face in this area. South Asian American individuals may choose a career path that may not match their personal interests and talents in order to maintain harmony within the family. On the other hand, the individual may value harmony above personal choice and therefore be willing to follow her parents' wishes. In this case, the counselor may want to help the individual satisfy her interests in other avenues, such as extracurricular activities.

If the individual is experiencing substantial conflict between her own desires and her parents' wishes, family therapy may help illuminate the difficulties in the family. The counselor can become a mediator between the two camps and help each side understand one another. Individual therapy may also aid the client in developing some coping strategies in dealing with the pressure she receives from her parents.

Gender Roles

South Asian American females do experience double standards such as less freedom than males, and this phenomenon may have its roots in South Asian culture. Ahmed[24] states that when adolescent girls of other ethnicities are involved in self-exploration outside of their families, the reverse occurs for Asian Indian American girls. In fact, South Asian American girls may be strongly discouraged from developing relationships outside of the home. Ah-

med[24] also argues that South Asian women are taught the concept of shame in order to protect the family name. On the other hand, 53% of White American households "want kids to be independent and value independent thinking."[25]

Furthermore, Gupta[26] conducted a study on 32 males and 58 female Asian Indians. After administering depression, optimism/pessimism, college adaptation, and acculturation inventories, she found that Asian Indian women were more depressed. She also discovered that acculturation and college adaptation were negatively correlated to depression. In this same study, Gupta[26] found a positive correlation between reported level of pessimism and depression. These high levels of pessimism and depression are symptoms of the extreme pressure experienced by second generation South Asian Americans which has led many of them to develop a fluid or multiple sense of identity or a segmented self.

The Segmented Self

Root[27] described a phenomenon for biracial individuals where the biracial person changes her or his identity according to the context and therefore creates a "segmented self." The segmented self means that the self is divided into separate and very different aspects that are expressed in certain situations.

Similarly, Yao,[17] in her study on Indian immigrants in Houston, Texas, noted that Indian American children live in two separate worlds (one at home and one at school). The two worlds that she describes are with the children's diet and religion. One world is the Indian homes where the children eat Indian food, yet Indian food, or food of a similar consistency, is unavailable in the school cafeteria. The second world is the one these children experience at school or outside of the home. Furthermore, most Indians are non-Christians, yet in the United States most children are exposed to Christianity. Yao[17] argues that Indian American children must create two different sets of behaviors to employ, depending on the context. Although Yao[17] states that she believes this "social chameleon-like" phenomenon occurs, no research to date has examined this phenomenon in the Asian Indian American or South Asian American community.

Rastogi[23] also found this segmenting-self phenomenon in her study. She found that a majority of South Asian women in her study created separate identities to cope with pressure from friends, family, and the community. One participant stated that she felt she had created different identities and found it difficult to combine the different aspects of herself. The prejudice that South Asians experience in the United States, which in turn causes a sense of isolation, can further exacerbate the issues described above.

Prejudice and Isolation

Prejudice. Since South Asians have been noted as an affluent population and as having professional success in America, some have assumed that South Asians have therefore not experienced prejudice.[9] However, Das and Kemp[5] report that school-age children do experience prejudice. In addition, the authors note that these children have not been raised to deal with prejudiced people of other ethnicities, and therefore lack the skills necessary to cope with prejudice. In African American families, many parents have experienced racism in America and thus have the skills to raise their own children with the skills needed to deal with racism. Therefore, African-American families can understand and possibly buffer the effects of racism. However, South Asian American immigrants may not understand the type of teasing that their children receive or they may even disbelieve their children because they themselves did not experience prejudice while growing up. As a result, these parents lack the knowledge they need to teach their children how to cope with and handle prejudice. When prejudice is based on one's physical appearance, it increases one's sense of self-consciousness, and the lack of skills to handle prejudice can contribute to a sense of isolation.[28]

Prejudice and isolation are not only experienced by second generation South Asian Americans; immigrants share these negative experiences as well. The glass ceiling that is known to exist for women cross-culturally also exists for Asian Americans, where efforts and hard work reap limited benefits and advancement.[29] Research has shown that Asian Americans earn less and have lower positions than Whites.[29] Therefore, if a counselor works with South Asian Americans, the counselor should be cognizant of the "reality base for feeling constantly judged and evaluated"[28] since their hard work may not be rewarded, or their work may be unfairly scrutinized. These occupational limitations and frustrations may lead to an enormous feeling of isolation.

Isolation. Root[28] found that individuals who experience excessive isolation may personalize the experience. By personalizing the events, the individual may become oversensitive to feeling different or misunderstood.[28] If this isolation continues for a long period of time, depression and self-doubt may arise. Root[28] argues that depression and self-doubt are more likely to occur for women than men since women are more relationship oriented; these feelings may represent that powerlessness that women feel in their lives.

This sense of isolation may also lead individuals to feel that they lack a connection with others. Root[28] argues that a connection to others is the basis for self-esteem. Of the South Asian women in Rastogi's[23] study, 90% reported feelings of isolation, as suggested by Root.[23] These women may be very sensitive to feelings of being disconnected from others. Considering the high level of isolation and disconnectedness experienced by South Asian women in Rastogi's study,[23] it may be important to explore the rate of depression, and suicide among South Asians in general.

Suicide

Several studies have examined the rates of suicide for South Asians and South Asian immigrants. However, there is a paucity of research on the suicide rates of South Asian Americans. One study in England and Wales found that suicide rates were not elevated for Bangladeshi, Sri Lankan, and Pakistani men and women, but rates were high for both Asian Indian men and women.[30] A study which examined the rates of suicide among immigrants to the United States found that young women immigrants are at higher risk of committing suicide than their male counterparts. This study reported the following factors may have lead to suicide: depression, anxiety, and domestic violence.[31] The BBC in October 2000 reported that young Asian women have suicide rates three times higher than other populations.[32] They suggest that the high rates may have to do with family conflict, racism, and isolation.

Identity issues, intergenerational conflicts, prejudice, and isolation are at the heart of the experiences faced by the South Asian American community. These experiences contribute to the overall mental health of the individual. However, because of cultural differences in the expression of mental health issues, these problems may go undetected from the mainstream psychological perspective. Thus, mental health professionals need to understand and be sensitive to culturally consistent patterns in the expression of mental illness.

Cultural Patterns of Illness

Many sources have found that Asian Americans present somatic, or physical, symptoms when experiencing psychological problems.[33] Kleinman[34] argues that Asian Americans report more somatic complaints versus psychological difficulties because somatic complaints are more acceptable by the community. Thus seeking treatment for a physical problem brings less shame to the family and community than seeking help for a mental health issue.

When South Asian Americans seek help they will usually find resources within the family.[33] Since Western psychology focuses on the individual as distinct from the group, the in-

volvement of the family in one's treatment is often seen as enmeshment by Western practices. The family may see the problem more as a family issue versus an individual problem. Clinicians who are unaware of the emphasis of family in South Asian culture may pathologize the family's involvement. Such pathologizing by the clinician may lead the family to terminate therapy because they may feel misunderstood. This may contribute to the low utilization rates of mental health services by Asian Americans.

Utilization of Mental Health Services

Leong[1] and Uba[2] state that Asian Americans underutilize mental health services. In addition, Asian Americans are admitted to hospitals at lower rates than the general population.[35] These findings have often been misinterpreted because Asian Americans have lower rates of treatment for mental disturbances than the general population.[32] This further perpetuates the myth of Asian Americans being a model minority.[33]

There may be several reasons why South Asian Americans underutilize mental health services. Many researchers note that South Asian Americans are hesitant to use mental health centers because of their strong value for not sharing family problems.[7,9,17,37] Families have reported that seeking counseling would stigmatize the entire family,[5,38] and therefore, South Asian families in the United States try to find other means of solving their problems.[38] Because of the concern of bringing shame on the family, a perception has developed among mainstream professionals that South Asians would be resistant to psychotherapy. Pride in achievement and success, prestige of careers, and wealth are other factors proposed that keep Asian Indian Americans from seeking therapy.

Psychotherapy

The stereotypical belief that South Asians are reluctant to pursue psychotherapy may have developed from the negative attitudes toward counseling in India.[7,39] However, Panganamala and Plummer[40] found that Asian Indian Americans hold either neutral or positive attitudes toward counseling. In addition, those that emigrated at an earlier age are found to view counseling more positively than those who emigrated at a later age. Lin [33] found first generation South Asians to respond more positively to therapy when certain characteristics are employed. These authors suggest that structured forms of therapy (e.g., cognitive, behavioral, and interpersonal therapies) may create a more conducive environment for South Asian Americans. Since, South Asian values stress a hierarchy with strictly defined roles, more structured forms of therapy where the counselor is the expert may be more consistent with South Asian values. However, other authors, such as Alan Roland,[41] suggest that insight oriented therapy (psychoanalysis) may also be very appropriate for South Asians.

Roland[41] suggests that in utilizing insight-oriented therapy with South Asians, the therapist must acknowledge that he or she may be perceived by the client as a family elder or "guru." Thus, the client reenacts the extended family hierarchical relationships within the therapy setting by perceiving the therapist as the superior in the therapeutic relationship. Initially, the dependency the client exhibits toward the therapist may translate into the client expecting the therapist to take care of him

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or her, solve his or her problems, and tell the client what to do to become a better person. Roland[41] suggests that the therapist may have to indulge the client's dependency needs in order to establish a working alliance.

Roland,[41] in working with Asian Indian clients, has noticed that by conveying an attitude of genuine interest, empathy, and emotional support, he was able to get his Asian Indian clients to begin speaking openly. He also observed that when a therapist continues to give advice and guidance, the client continues to ask for it and is willing to work on his or her intrapsychic conflicts. In conclusion, Roland[41] observed from his therapeutic experiences that once South Asians get past their social reserve and etiquette, they become very receptive to insight-oriented therapy by revealing their inner life even more openly than most White American clients he has worked with. In addition to psychotherapy, other forms of psychological treatments using Western standards may need to be adjusted for South Asian clients; for example pharmocotherapy.

Pharmocotherapy

According to Lin, Poland, and Nakasaki,[42] Asian Americans have different responses to medications, such as having different dosage requirements and side effects. Asian Americans respond to a significantly lower dosage of medication than White patients since researchers hypothesize that Asian Americans' drug-metabolizing enzymes act slower than Whites. The slower acting enzymes could have developed from several sources such as environmental influences or diet. Asian American clients thus may require lower dosages of medications than White clients. Hence, Lin and Cheung[33] recommend starting Asian Americans patients at half the dosage normally given to White patients. Insufficient evidence is available to make this a recommended practice, and therefore, physicians should consider individual differences when prescribing medication.

Conclusion

Substantial research is needed on the mental health issues that affect the South Asian American community. Current research supports the notion that this community may need adjusted, and sometimes different, services than the dominant population. Research has shown that South Asian Americans face several issues: immigrant stressors, second-generation issues, intergenerational conflict, ethnic identity development, and prejudice and isolation. These issues are further complicated by the differences in cultural expressions of mental illness and may contribute to the lack of use of mental health services. Furthermore, mental health professionals need to adjust to the specific psychotherapy and pharmocotherapy needs of South Asian American clients.

Clinicians should pay special attention to the cultural differences (e.g., family involvement, shame regarding treatment and illness, type of therapy) when treating members of this community. Furthermore, counselors should also be aware of ethnic identity development models and experiences and consequences of prejudice on the client's mental health, such as suicidality.

Recommendations

- Therapists should develop outreach programs that target South Asians to diagnose problems early and therefore, prevent their illnesses from becoming severe. South Asian Americans should also be educated on the progression of mental illness so they are aware of signs and symptoms, and where to seek treatment.

- Physicians should be aware that South Asians' physical complaints could be an indication of an underlying emotional problem, since South Asian Americans may be more comfortable complaining and seeking treatment for physical ailments or problems than seeking out mental health treatment.

- Therapists need to be open to parents joining in, or inquiring about counseling. Also, clients may feel an extreme sense of obliga-

tion and loyalty towards their family members. It may be difficult for clients to discuss interpersonal tensions within the family.[43] Therapists will have to balance challenging the client and creating a safe and accepting space where the client will share openly over time.

- Clinicians should assess individual client differences since past research has shown that Asian American clients respond to different forms of therapy. Some prefer more structured forms of therapy while others respond to insight-oriented therapies and still others respond to a "multi dimensional approach" using both expressive and cognitive-behavioral approaches.

- When working with clients who are receiving psychiatric treatment in conjunction with counseling, clinicians should understand some of the biological differences that may exist. Asian Americans have been noted to respond to lower dosages of psychotropic medications, although these findings should be utilized on an individual basis.

- Therapists and South Asian Americans should examine factors that may impact immigrants' mental health: acculturation, gender roles, conflicts with "Americanized" children, and employment stressors.

- Counselors may want to examine particular issues that second-generation South Asian American (or children of the South Asian immigrants) clients face, including feelings of isolation, identity conflicts, conflicts with parents over performance, and gender roles.

- Therapists may want to examine the impact that long-term rejection and isolation may have on the individual, since both generations (first and second) face issues of isolation and loneliness, prejudice, and possible thoughts of suicide.

- Clinicians can further help themselves by gaining knowledge about the client's socioeconomic status, subgroup identity, and religious or spiritual beliefs through both readings and questions directed toward the client.[38]

- Professionals can help the South Asian American community by: 1) training professionals to be aware of issues specifically related to the South Asian community, 2) developing an array of resources, and 3) developing outreach programs that address and educate the South Asian American population about mental health issues. A particular outreach approach may be needed to address the high rates of suicide among young Asian Indian women.

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Nutrition

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Objectives: The authors reviewed the available literature regarding the dietary practices and nutrient intake of South Asian immigrants in the Western world and its impact on their risk of chronic disease.

Key Findings: The dietary practices of the South Asian community are diverse and are influenced by a multitude of factors (e.g., culture, religion, region of origin, etc). Adaptation of the Western dietary practices by these immigrants is observed. Additionally, dietary practices such as low fruit intake, high simple carbohydrate intake, and high fat intake are common among this group, and have been observed to be associated with their risk of chronic disease.

Recommendations: South Asians should be educated about appropriate dietary practices in order to lower their risk of chronic disease. A need exists for in-depth examination of dietary and nutrient intakes of this immigrant population to gain a better understanding of the impact their diet habits and practices have on their chronic disease risk and to allow health care providers to better meet the health care needs of this community.

Introduction: South Asian Dietary Practices

South Asians who live in the United States have significant within-group diversity in dietary intake and practice based on their country of origin.[1] Furthermore, regional differences in dietary intake and practices exist within each South Asian country.[2] Thus, when examining diet and nutrition of South Asians to assess their health risks, it is important to determine country and region of origin.

Geographic and climactic variations and a heterogeneous population within each country make South Asian dietary practices unique and diverse. For example, dietary patterns differ among individuals of northern, southern, eastern, and western parts of India.[1] Additionally, a vast majority of the South Asian population is vegetarian for reasons, such as cost, culture, and religion.[2] While individuals from all regions may share similarities with respect to certain foods, such as fruits and vegetables, certain marked distinctions exist in patterns of consumption (see Table 1).

Regional differences in diet are also found among older Asian Indian immigrants in the US. For example, immigrants from the northern states of India more frequently consume dark breads, eggs, and fats; and immigrants from the southern states of India more frequently consume starchy foods and fried chicken.[3] Specific dietary practices may increase health risks for individuals from a particular region of South Asia. Patterns of food consumption contribute to differences not only in nutrient intake but also in body mass index (BMI), chronic disease risk factors, such as blood cholesterol and blood sugar, and overall health status.

South Asian Immigrants and Dietary Intake: Summary of Current Research Findings

Much of the research related to dietary intake among South Asians has been conducted in the 1980s and 1990s in the United Kingdom (UK) and the US, focusing on subgroups of the South Asian population. Generally, existing studies provide an initial overview of the dietary patterns in the Western world. However, it is important to note that majority of the studies have mainly examined first generation Asian Indian adult immigrants. Specific findings of nutrition-related research are highlighted (see Table 2).

McKeigue et al.[13] observed that South Asian immigrants consume diets low in fat, (<30% energy), with a high ratio of polyunsaturated to saturated fat. However, given the high prevalence of cardiovascular disease (CVD) in this

population, it is likely that the 30% dietary fat recommendation may be in excess of actual needs for this group. Yagalla et al.[6] examined a group of immigrant Asian Indian physicians, with a mean age of 47 years and mean length of residence in the US of 19 years. The average dietary energy intake was 56% carbohydrates, 32% fat, and 8% saturated fat. These individuals tended to consume large evening meals that were high in energy and carbohydrates. Typically, Western foods were consumed for breakfast and lunch while evening meals consisted of traditional South Asian foods.

Table 1. Examples of Dietary Intake Practices by Selected Regions of South Asia

Country and Region	Dietary Intake Practices
India	
(North)	Main staple is wheat
	Higher consumption of dried or pickled fruits, vegetables, eggs
	Common beverage tea
(South)	Main staple is rice
	Higher consumption of fresh fruits and vegetables
	Common beverage coffee
(East)	Seafood commonly consumed even by vegetarians
	Main staple is rice
	Milk based dishes common
(West)	Predominantly vegetarian based diet
	Seafood popular among coastal regions
	Main staple is wheat
Pakistan	Indian and Arabic cooking practices
	Halal meats
	Flat breads and pilafs common
	Main staples are wheat, rice and corn
	Common beverage tea
	Alcohol forbidden
Bangladesh	Seafood commonly consumed
	Halal meat
	Alcohol forbidden
Nepal	Main staples are rice, legumes, pulses

BMI, a ratio of weight (kg) to height (m) squared, is a widely recognized risk factor for poor health and is influenced by an individual's dietary and lifestyle practices. Yagalla et al.[6] also found that among vegetarians BMI was higher than that of non-vegetarian participants (26 vs. 24.4). The vegetarian diets were rich in high fat dairy products, resulting in total fat and saturated fat intake similar to that of non-vegetarians. In addition, only 30% of these individuals exercised 60 minutes per week, potentially contributing to the high BMIs.

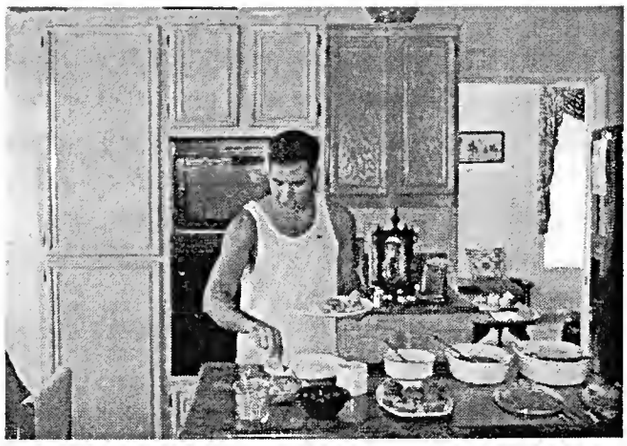
Raj et al.[9] reviewed the dietary practice of Asian Indian adults living in the New York and Washington, DC areas, based on length of stay in the US. Of the respondents, 63% preferred mostly Indian foods, 31% preferred traditional and non-traditional food equally, and 6% preferred one or the other exclusively. Interestingly, long-time residents (living in the US for greater than 10 years) reported consumption of mostly traditional foods for dinner and weekend meals. Since immigrating to the US, these participants reported consuming fewer traditional mixed dishes (based on cereals, legumes, and/or vegetables) and consuming more fruit juice, chips, fruits, margarine, cola, and alcoholic beverages. Additionally, self-reported data suggests that these individuals had elevated cholesterol levels, hypertension, arthritis, and diabetes, and were overweight.

Another study conducted by Kamath et al.[8] examined the CVD risk factors in a group of pre-menopausal South Asian females living in the US About 38% of the women reported having a vegetarian diet, and 81% reported consuming a variety of ethnic foods in addition

Table 2. Summary of Studies Examining Dietary Intakes of South Asian Immigrants*

Reference	Study Population	Participants	Results of Dietary Intakes
Gupta[4]	US	Asian Indian men and women, 20-45 years of age (n=50)	60% ↑ non-vegetarian dietary habits American foods eaten for breakfast and lunch 80% preferred typical Indian dinner 50% started consuming alcoholic beverages
Sevak et al[5]	UK	South Asian men, 40-69 years of age (n=173)	Nutrient intake: 46% energy from carbohydrate, 14% energy from protein, 36% energy from fat High dietary fiber intake 47% did not consume alcohol
Yagalla et al[6]	US	Asian Indian men, 29-75 years of age (n=153)	84% non-vegetarians Nutrient intake: 56% energy from carbohydrate, 13% energy from protein, 32% energy from fat American foods consumed for breakfast and lunch Indian food typically consumed for evening meals Vegetarian diet was higher in carbohydrate and high-fat dairy products
Kamath et al[7]	US	Asian Indian men, 26-76 years of age (n=187)	82% non-vegetarians Nutrient intake: 49% energy from carbohydrate, 14% energy from protein, 36% energy from fat 36% had elevated blood cholesterol levels
Kamath et al[8]	US	Asian Indian and Pakistani women, 19.8-38.7 years of age (n=47)	38% vegetarians 19% followed an "all Indian/Pakistani" diet 53% followed an "all American diet" Median Nutrient intake: 58% energy from carbohydrate, 13% energy from protein, 30% energy from fat, 12 g fiber/day ↑ blood cholesterol levels in South Asian women vs. American women
Raj et al[9]	US	Asian Indian men and women, ≥20 years of age (n=73)	60% non-vegetarians 63% mostly preferred Indian foods ↓ intake of traditional mixed dishes ↑ intake of fruit juices, chips, fruit, margarine, cola and alcoholic beverages
Lawson and Thomas[10]	UK	South Asian children, 2 years of age Bangladeshi (n=139) Pakistani (n=200) Asian Indian (n=279)	20-34% of South Asian children had blood vitamin D levels indicative of deficiency 20-29% of South Asian children had low hemoglobin levels indicative of iron deficiency
Fischbacher et al[11]	UK	South Asian men and women, 25-74 years of age Asian Indian (n=259) Pakistani (n=305) Bangladeshi (n=120)	32% of Asian Indians rarely or never ate meat vs. 2% of other ethnic groups Anemia due to iron deficiency was 3 times more common in South Asian women
Chambers et al[12]	UK	Asian Indian males, mean age 52 years (n=518)	Low blood levels of vitamin B12 and folate

* This is not an exhaustive list of the published literature; the intention of this table is to provide an overview of some of the existing literature; ↑ = increased; ↓ = decreased



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total cholesterol (TC), triglycerides (TG), low-density lipoprotein cholesterol (LDL-C), and lipoprotein(a) (Lp(a)) were higher, and high-density lipoprotein cholesterol (HDL-C) was lower. These are well-established risk factors of CVD in the general population and are influenced by an individual's dietary and lifestyle practices.

Kamath et al.[7] also observed a group of middle-aged Asian Indian men, living in the US for approximately 17 years, and found that 24% were overweight. Of the total male respondents, 82% were non-vegetarians and dietary fat contributed 36% of calories, carbohydrates contributed 49% of calories and protein contributed 14% of calories. Although dietary cholesterol intake was within the recommended range (162 mg/day), 19% had elevated TC (>6.2 mmol/L) and 46% had borderline TC (5.2-6.2 mmol/L). Of these men, 4% reported having heart disease or angina, 1.6% had suffered a heart attack, 15% had hypertension, and 8.8% had diabetes. Data here show that it is necessary to give attention to dietary intake in order to properly assess health risks.

It is necessary to avoid assumptions based on the dietary practices in the country of origin when addressing nutrition and health. Once individuals have immigrated to the US, they may need to become aware about food choices and nutritional contents of the various ethnic and non-ethnic foods that are available. Evidence suggests that dietary recommendations to prevent chronic disease in the general population may need to be adapted and modified to the dietary practices of the South Asian immigrants. On the other hand, there may be benefits in South Asian dietary practices as well. Death rates associated with cancer have been observed to be low and may be attributed to the high fiber, high beta-carotene intake and/or variations in colonic metabolites of South Asians,[14] requiring a closer look at diet and nutritional content of various foods and gaining a better understanding of predisposition to chronic disease.

Earlier US-based studies indicate that altering vegetarian status and meal patterns, changing frequency in consumption of traditional Asian Indian foods, and increasing use of Western foods commonly occur among Asian Indians upon migration to the US.[4,15] Similarly, South Asians in the United Kingdom (UK) were less likely to consume confectionery, biscuits, cakes, and desserts than the general British population.[14,16] They were also more likely to consume fresh fruit and vegetables, salads, whole wheat flour, soft drinks, and fruit juices. Only 16% of South Asians reported never eating meat. However, compared with the general British population, South Asians were more likely to eat meat three times a week, especially poultry and fish. As in previous studies, individual body fat was more centrally located, and they were shorter.[14,16,17] These changes in dietary practices may further aggravate the potential genetic predisposition of certain groups to chronic disease conditions.

In addition to the well-established chronic disease conditions, South Asians may also be susceptible to other diet-related conditions, namely lactose intolerance, osteoporosis, and iron-deficiency anemia, which can influence their overall health and functional well-being. Lactose intolerance refers to symptoms associated with the digestive system, such as diarrhea, gas, bloating, and abdominal pain, arising from the consumption of lactose, the principal sugar in dairy products.[18] The intolerance develops due to a decline in the activity or absence of lactase, the enzyme needed for the digestion of milk sugar. Typically, this decline in enzyme activity is believed to be a normal

Table 3. Examples of Diet Related Practices and Risk Factors for Poor Health in South Asians

Dietary Factor	Influence
High simple carbohydrate intake	↑ risk of diabetes
High total fat intake, High saturated fat intake	↑ risk of heart disease and obesity, elevated blood cholesterol concentrations
Low folic acid, vitamin B12 intake	↑ risk of heart disease, elevated blood homocysteine levels, anemia
Low dairy products consumption, Lactose-intolerance	↑ risk of osteoporosis
Strict vegetarian diet	↑ risk of iron-deficiency anemia

physiologic response of aging. However, certain ethnic groups are known to be more susceptible to lactose intolerance than others, and prevalence of the disorder varies widely among different ethnic and racial groups.

In the US, it is estimated that 90% of Asian Americans exhibit lactose maldigestion.[19] However, it is unclear what percent of this population is comprised of South Asians, and the prevalence of the condition in South Asians is not well established. Individuals who believe they are lactose intolerant typically decrease their intake of dairy products, negatively affecting the amount of micronutrients, such as calcium and vitamin D, which are provided by these products. It is, therefore, important to accurately diagnose the condition and provide appropriate treatment, which can include the use of lactose-free milk and lactose-digestive aids.

Osteoporosis and iron-deficiency anemia are chronic conditions also known to be related to diet (see Women's Health chapter). Briefly, osteoporosis is a degenerative bone disease that occurs as a result of lower bone mineral density in Asian women and men,[20] mainly attributed to smaller body frame size, smaller skeleton size, lower body weight, as well as lower intake of foods rich in calcium and vitamin D, such as dairy products. Cundy et al.[21] observed that bone mineral density in Asian Indian women was significantly lower at all sites compared with European women. Dietary deficiencies in calcium intake may begin early in life due to decreased milk consumption. Malabsorption of calcium can result from deficiencies of vitamin D due to either inadequate diet or decreased exposure to sun-light as a result of cultural norms. Social dogma that prevents the use of hormone replacement therapy by post-menopausal women can undermine potential options in treatment of osteoporosis.[22] Certain socio-cultural factors also explain the higher prevalence of osteoporosis among Asians.

In addition to correcting diet for prevention of osteoporosis, there is a need to increase iron consumption, particularly among women. The vegetarian diet has been implicated in several nutrient deficiencies, contributing to iron-deficiency anemia and influencing individual functional well-being.[11] These and other diet related practices increase the risk for chronic disease among South Asians (see Table 3).

Dietary practices can play a significant role in susceptibility to disease, and a better understanding of these practices is needed in order to improve overall health for South Asians. However, given the diversity within South Asian groups, it is imperative that future studies be conducted with a more representative sample of the population. Data should be inclusive of and needs to compare age, gender, length of residence in the US, as well as country and region of origin.

Addressing the Gap in Nutritional Guidelines for South Asian Foods

While dietary guidelines and recommendations are targeted for the general population, there is a clear need for assessing nutritional content of South Asian foods. A few groups, such as the American Dietetic Association (ADA), United States Department of Agriculture (USDA), and Indian American Dietetic Association (IADA), have attempted to ad-

dress this gap and increase knowledge of dietary requirements.

The Food Guide Pyramid: A Guide to Daily Food Choices provides a translation of traditional South Asian foods into the USDA recommendations. It provides guidelines with respect to the appropriateness of foods within the major USDA food groups and their relative serving sizes. Similarly, the Food Guide Pyramid with Popular Indian Fare by the ADA is helpful in translating the USDA Food Guide Pyramid guidelines into specific ethnic Indian foods. These are useful tools for South Asians who are following a more traditional diet.[23-25] As part of the Nutrition Education for New Americans Project of the Department of Anthropology and Geography at Georgia State University, the USDA Food Guide Pyramid has been translated into several South Asian languages (e.g., Hindi, Gujarati, Bengali) to educate target groups about the positive and negative consequences of Western foods. Guidelines include nutritional information for pregnant women and their growing infants.[26]

The ADA has also created a document called the "Ethnic and Regional Practices: A Series: Indian and Pakistani Food Practices, Customs and Holidays." It provides dieticians working with South Asian clients useful information regarding traditional foods, health beliefs, food practices by region and religion, and contemporary food habits. The prevalence of diabetes among South Asians is addressed, including dietary recommendations for individuals living with diabetes. Recommendations also are interpreted and translated for nutrition management of diabetes, as they apply to the typical food habits of individuals maintaining a traditional South Asian diet and who have Type 2 (non-insulin dependent) diabetes. Sample meals and a brief chart with nutrient content of traditional foods are listed.[27]

Founded in 1992, the IADA is comprised of volunteer dietitians, working with South Asian communities. They provide medical nutrition therapy to senior citizens, work with physicians to provide dietary counseling for South Asians, organize community health expos to increase nutrition awareness, and deliver nutrition and health-related lectures in various South Asian languages. Familiar with the community's dietary habits, the IADA serves as a resource for nutritional counseling.[28]

Recommendations

This review on nutrition and South Asians highlights the complex dietary practices and behaviors of the community as well as the need for in-depth examination of the dietary and nutrient food content. Further studies are needed to identify ways to improve the dietary behaviors and lower risk of morbidity and mortality from chronic diseases. Based on the review, the following recommendations are made:

- Improve overall dietary intake and closely examine nutritional make up of foods.
- Provide nutrition education with regards to making healthful dietary choices in both traditional and non-traditional foods.
- Adapt and translate current dietary recommendations for South Asian populations.
- Examine the influence of socio-cultural factors on dietary practices and on health status.
- Research dietary and nutrient intake for greater understanding and increased efficacy of chronic disease prevention and treatment messages.

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- Develop and test nutrition education and intervention tailored to community needs.
- Educate dietitians and health care professionals about South Asian dietary practices in order to increase the effectiveness of their prevention and treatment messages.

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Substance Abuse

Shilpa N. Patel, MPH

Objectives: The author gathered information from various organizations, conducted interviews, and reviewed quantitative and qualitative research to report on substance abuse in the South Asian context in the United States.

Key Findings: The emergence of culturally appropriate prevention and treatment programs for Asian American and Pacific Islander (AAPI) communities reflects an increasing awareness about substance abuse in the South Asian community. Nevertheless, greater strides need to be made to develop and improve substance abuse programs for South Asians. Also, quantitative and qualitative research studies focused on AAPIs, particularly South Asians, remain underdeveloped and unsupported.

Recommendations: Organize members of the community to share perceptions and thoughts, identify risk factors, and develop interventions. Disseminate information and advocate existing organizations to adopt culturally appropriate prevention and treatment interventions.

Introduction

The problem and extent of substance abuse cut across all races in the United States. According to a 1999 study, an estimated 3.6 million Americans (ages 12 and over) exhibited a dependency on illicit drugs, such as marijuana, crack/cocaine, and heroin. Approximately 8.2 million were found to be dependent on alcohol. While 66.8 million Americans used a tobacco product, 57 million of these tobacco users smoked cigarettes. Additionally, the use of psychotherapeutic drugs, including pain relievers, tranquilizers, and sedatives, have risen.[1]

The high prevalence (percentage of cases in the population) of substance abuse in the US reflects an urgent need to address the issue in all communities and on all ethnic and racial fronts. The growing number of substance abuse treatment and prevention organizations signifies a burgeoning interest in raising substance abuse awareness and in containing the problem. However, prevention efforts among specific ethnic and racial groups remain underdeveloped and unsupported in the US.

This is clearly the case with respect to the Asian American and Pacific Islander (AAPI) population, in which research on substance use has been limited. AAPIs are growing markedly, estimated to reach 10% of the US population by the year 2050.[2,12] Nevertheless, when examining substance use, researchers tend to study "established" ethnic groups, where perceived risk factors are greater.

Two studies that were conducted in 1993 and 1999 show relatively lower substance use and abuse rates for AAPIs. Compared with other American groups (ages 12 and over), AAPI populations have lower illicit drug use, cigarette use, alcohol dependence, and need for substance abuse treatment[3] (see Table 1 and Figure 1). The research demonstrates a need for updated studies on the substance abuse rates among AAPIs.

Experts advocate the importance of recognizing and responding to the unique cultural differences between AAPI subgroups by developing culturally-specific prevention, treatment, and research interventions. Until these distinctions are made, it is difficult to identify the intersection between substance abuse and AAPI subgroups. Although recent efforts have been directed towards developing culturally-specific interventions, prevention and treatment strategies must be re-evaluated and re-conceptualized for cultural competency.

The lack of ethnic-specific studies and underrepresentation of AAPIs in substance abuse information limits awareness, stifles research,

Table 1. Substance Abuse Study, 1991-1993

	AAPI	Overall	Mexican American	Caucasian	Puerto Rican	African American	Native American & Alaskan
Illicit drug Use	6.5%	11.9%	12.7%	11.8%	13.3%	13.1%	19.8%
Cigarette Use	21.7%	30.9%	29.1%	31.5%	32.7%	29.9%	52.7%
Alcohol Dependent	.9%	5.1%	6.9%	5.3%	4.0%	4.7%	4.6%
Marijuana Use	4.7%	9%	9.1%	8.9%	10.8%	10.6%	15%
Need for Drug Abuse Treatment	1.7%	2.7%	3.6%	2.5%	3.7%	3.9%	7.8%

Note: Only six out of eleven ethnic groups in the study are listed above.
Source: Substance Abuse and Mental Health Services Administration (SAMHSA), 2001[3]
Data was extrapolated from the 1991-1993 National Household Survey on Drug Abuse: Prevalence of Substance Use among Racial/Ethnic Subgroups in the United States

perpetuates ignorance, and prevents the development of culturally-competent treatment and prevention interventions. Perhaps, glaring absences of information stem from the belief that AAPIs represent a "...model community with few, if any problems, related to substance abuse." Nevertheless, it is critical to "...dispel this myth, generate more informed perspectives on use rates, and recognize [the unique] differences..." among AAPI subgroups, such as South Asian Americans.[2,4]

This review reveals the underlying barriers and implications faced by South Asians at-risk for substance abuse. Furthermore, it sheds light on the widening complexity of substance abuse in the US, examine epidemiological studies, describe organizational efforts, and offer culturally-appropriate recommendations.

Understanding Substance Abuse within the South Asian Context in the US

In order to understand substance abuse in the South Asian community, risk factors linked to substance abuse must be identified. Cultural factors concerning new immigrants, as well as first and second generation South Asians, must also be assessed. An overview of terms and current prevention and treatment interventions related to substance abuse are provided below, along with the cultural implications concerning South Asians and substance abuse in the US.[4] A historical understanding of substance abuse among South Asian populations in the US may provide researchers and service providers greater insight into the depth and scope of the substance abuse problem. The intersection between South Asians and substance abuse in the US dates back to the early 1900s in California, where the stresses of immigrant life were mentally and physically taxing:

> "...alcoholism was the leading cause of death among...immigrants in the early period [1950s and before]. Quite a few ...immigrants were in the habit of drinking strong liquors, such as whisky and brandy, and very often got drunk...[and drank] themselves into forgetfulness...to forget they were alive."[5]

Dr. Antony Stephen, a leading researcher of substance abuse and the Executive Director of the New Jersey Asian American Association for Human Services, associates problems of substance abuse among South Asians with Western influence and ineffective coping strategies. Dr. Stephen asserts, "countries that were colonized like India were exposed to drugs like opium, marijuana (ganja), heroin, alcohol, and tobacco many years ago and re-

flect a long-standing problem among South Asians today." Dr. Stephen suggests that it is important to identify indigenous drugs (drugs commonly abused in the country of origin), as these drugs may also be abused in the new country (US). Examples of indigenous drugs include betel-quid (variations of areca nut/betel nut, spices, tobacco, wrapped in a betel leaf, also known as "paan"), bidis (unrefined cigarettes), ganja (marijuana), and alcohol. Unfortunately, service providers may not recognize such substances and the associated risk factors, thus impeding prevention and treatment efforts.[4,8]

Although drug involvement and drug consumption can be universally characterized and described, it may be important to adopt both Western and South Asian models for diagnosis and treatment in an effort to better serve the needs of all South Asian American clients. For general understanding, the terms *drug use, abuse*, and *dependence,* can be distinguished in the following ways:

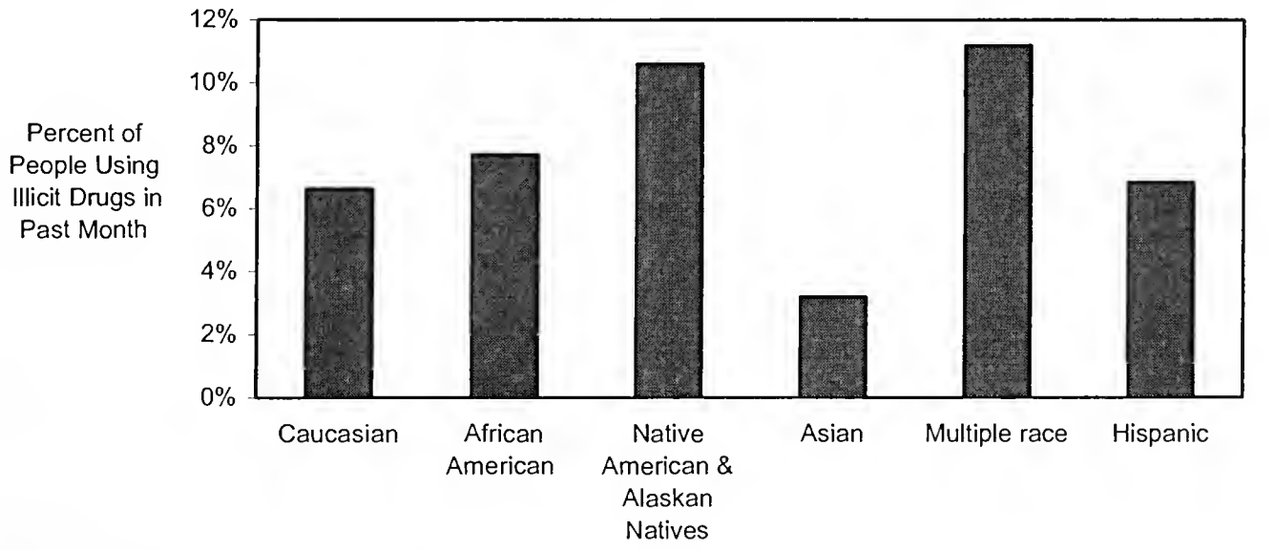
- *Drug Use* can be defined as inconsistent/infrequent consumption doses, rarely causing long-term, damaging (either physical or behavioral) consequences. This type of drug involvement may be considered experimental, casual, or social.

- *Drug Abuse* can be characterized as drug consumption that is periodically heavy, causing detectable adverse effects on body function and overall health. This type of drug involvement may be quite complicated and have serious consequences, such as violence and injury.

- *Drug Dependence* can be described by high and frequent doses, taken continuously over a period of at least one month. Symptoms such as compulsion and cravings pose severe consequences for overall health and well being.[6,7]

Many clinicians and public health professionals believe drug experimentation follows a sequence or progression. Currently, research shows that adolescents in the US, who dabble with multiple drugs follow a pattern of drug involvement. The most common pattern in-

Figure 1. 1999 National Household Survey for Drug Abuse: Illicit Drug Use by Race/Ethnicity, Ages 12 and Over



Note: Multiple races represent those who chose more than one ethnicity to represent themselves.
Source: Substance Abuse and Mental Health Services Administration (SAMHSA)
Data was extrapolated from the 1999 National Household Survey for Drug Abuse

volves the following stages: alcohol, tobacco, marijuana, and finally, "hard" drugs, such as sedatives, tranquilizers, and cocaine. Less expensive substances that are widely marketed such as alcohol and tobacco, though illicit for minors, are generally more accessible to minors. Moreover, marijuana use precedes cocaine use, because it is perceived as being less dangerous, less expensive, and more accessible. Though the concept of gateway drugs is challenged in recent literature, the pattern may indicate that a more serious involvement in drugs exists. Nevertheless, in order to apply these findings to the South Asian population in the US, specific factors associated with drug usage, including indigenous drugs, must be identified and assessed.[6,7]

Taken together, the dimensions of immigration, acculturation, and cultural norms allow service providers and researchers to understand substance abuse within the South Asian community. Factors related to substance abuse among South Asians may include language and cultural barriers as well as pressures of being new in the country. "The average South Asian immigrant arriving in the US today is a single male between the ages of 26 and 32," according to information released by the Nav Nirmaan Foundation, which provides services for South Asians with substance abuse problems and a gamut of related issues in the New York City area.[9] In addition, many immigrants perpetuate social isolation by alienating themselves from mainstream society. Typically, immigrants live in a community with people from the same country, where the native tongue is spoken and ethnic newspapers and books can be accessed. Moreover, fear, shame, and ignorance, often stemming from isolation, may keep South Asian immigrants from assimilating and seeking help in the new society.[9,10] Sudhir Nayyar, the Director for the South Asian Outreach Program at the American Cancer Society in New York states, "...it takes a desperate situation, such as a DUI [driving under the influence] conviction before a South Asian seeks help." According to Mr. Nayyar, many South Asian elderly and immigrants do not even recognize the health and criminal repercussions associated with substance abuse. In addition, Mr. Nayyar attests that the health care and social service system, which represent major interventions with relation to substance abuse, remain untapped by South Asians as they are unable to navigate through the health care system due to unfamiliarity and limited English proficiency.[11,12]

Denial and feelings of shame lie at the heart of the substance abuse problem within the South Asian community. According to Nav Nirmaan, traditionally, "...alcoholism is viewed as a social stigma...not as an illness, but rather [that] the person is crazy or bad." The alcoholic's behavior is perceived as intentional.[9] In addition, there are strong cultural pressures to resolve problems within the family. Dr. Stephen speaks anecdotally of first and second generation South Asians whose drug involvement led them to being sent away to relatives' homes instead of to a substance abuse treatment center.[4,8] This highlights the importance of heightening awareness about substance abuse prevention and treatment within the South Asian community.

Unemployment, under-employment, level of education, and being poor may be linked to substance abuse. According to the Nav Nirmaan organization, 10% of the clients live below the poverty line (average income that constitutes poverty). Additionally, 80% of Nav Nirmaan clients have less than a high school education and many clients have blue collar jobs, such as cab driver, store worker, and so on.[9,10] The evidence provided highlights the connection between low socioeconomic status (income level related to social status) and the likelihood of drug involvement.

Another risk factor for drug abuse stems from intergenerational conflict. Children of immigrant parents who ease into mainstream American culture may come into conflict with parents, with respect to beliefs, traditions, and general practices of their parents and/or ex-

tended family. Rebellion (a common characteristic among adolescents, regardless of ethnicity) against family and traditions may culminate into drug usage.[4,10] Additionally, it is believed that South Asian gangs, identified in New Jersey and New York, have formed to rebel against South Asian tradition and culture. The identified gang members are known to engage in risky behaviors, such as substance use and abuse.[13]

Certain risk factors, protective factors, and treatment interventions identified in mainstream US society may also be relevant and useful to South Asian communities in the US. Service providers and researchers working with South Asians must stress specific protective factors that may prevent the abuse of substances, such as close, positive bonds with family, involvement of parents in education, strong ties to school or religious organizations, and parental supervision. Relevant risk factors, such as weak social skills, poor coping skills, inappropriate shy or aggressive behavior, poor community environments, ineffective parenting, failure in school, unemployment, and poverty, should be recognizable. In addition, prevention and treatment interventions, such as linguistic services, and culturally-specific counseling, may be adopted into current treatment models of group therapy, individual counseling, and drug therapy (used to alleviate substance withdrawal symptoms).[14,15]

Substance Abuse among South Asians

The most relevant studies related to South Asians and to substance abuse have been conducted abroad and very few have been conducted in the United States. The paucity of prevalence information regarding drug abuse among South Asians and the general AAPI population indicates the need for prevention-oriented, ethnographic studies. Typically, researchers have grouped AAPIs under one umbrella, leaving minimal information about the actual participation and representation of AAPI subgroups in substance abuse studies. Moreover, since the South Asian population is considered to be much smaller than other AAPI subgroups, prevention research has generally focused on more established AAPI groups. In addition, factors such as gender, age, socioeconomic characteristics, sample size (whether sample is large and representative of the community to draw reasonable conclusions about similar populations), drugs consumed, level of education, and culture should be accounted for in research studies. After all, the nature and extent of the substance abuse problem in the South Asian context will remain unknown until reliable, accurate data are collected.

A 1993 study conducted in the United Kingdom (UK) found lower rates of alcohol consumption among South Asians (Indians, Pakistanis, and Bangladeshis) than the larger British population. However, alcohol-related morbidity for some South Asian communities was higher than the general population. Moreover, consumption among Sikh men was higher than among Hindus and Muslims. In addition, the South Asian psychiatric admission rate due to alcohol had risen since 1971, which may reflect a larger abuse issue. The results from this study provides evidence of alcohol abuse among South Asians in the US.[16]

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In 1995, a study on betel nut chewing, with and without tobacco, was conducted to assess basic information on behavior and perceptions of risk among first generation Bangladeshi adults in the UK. Out of 127 households, 92% of males and 96% of females chewed betel-quid on a day-to-day basis, and 39% and 82%, respectively, included tobacco in their quid. More importantly, only a small percentage of the study participants understood the health risks linked to tobacco chewing. The findings support the need to educate communities, heighten understanding, and stimulate discussions among community members regarding this drug, otherwise commonly perceived as harmless.[17]

In 1998, Gauri Bhattacharya assessed whether intergenerational conflict was a contributing factor to ATOD (alcohol, tobacco, and other drug) use among Asian Indian adolescents (Asian Americans whose parents migrated from India). Battacharya described the association between ATOD and stress that results from identity development and conflict over family roles and behavioral norms. Interaction among these factors may have reciprocal, synergistic, mediating, or contributing effects on drug use problems (e.g., alienation between parents and children may lead to drug use and further alienation). In addition, family conflict and ATOD use among Asian Indian adolescents were identified as emerging phenomena that warrant additional scientific inquiry. Although formal research was not conducted, Bhattacharya's insights, as described above, may appropriately apply to South Asian adolescents in the US.[8,18]

Another study in 1999 examined attitudes, knowledge, and beliefs of adult South Asians in London, with reference to tobacco, betel-quid use, and risk of oral cancer. South Asian men (sample size: N = 367, ages sixteen to eighty years) from diverse socioeconomic and cultural backgrounds exhibited varying betel-quid chewing habits. Tobacco use in betel-quid was appropriately identified in 82% of the participants, and 42% of the participants in the 50-80 age group practiced the same betel-quid chewing habits. Interestingly, only 5.3% of the participants, ages 16-29, adopted the betel-quid-tobacco habit. The study also revealed that the betel-quid chewing habit was being replaced with a ready-made areca nut/tobacco product. Overall, a tremendous amount of misinformation existed concerning health risks due to substance abuse, especially in the elderly population, further illustrating the need to develop appropriate education interventions.[19]

In 1999, the RAND Corporation study examined adolescent use of illicit drugs (other than marijuana) and the importance of social bonding related to ethnic groups, and emphasized the importance of protective factors in preventing substance abuse. Adolescents (sample size: N = 4,070, of which 355 were Asian Americans) who engaged in deviant behavior (e.g., theft, trouble with the police) raised the likelihood of drug behavior. Related factors, such as positive attitudes toward drugs, exposure, and approval of drugs by peers, influenced drug involvement, even more so than weak familial and school bonds. While Asian Americans were less likely to use illicit drugs, school failure (repetition of a school grade) increased the likelihood of drug involvement. For Asian American youth, school failure signified the inability to conform to conventional norms and emphasized the value Asian Americans place on academic achievement. Similar conclusions can be made in the case of South Asian adolescents at risk for substance abuse. The research findings also underscore the importance of identifying risk factors and enhancing protective factors specific to AAPI adolescent populations in the US.[20]

The Substance Abuse and Mental Health Services Administration (SAMHSA) assessed prevalence of substance abuse among eleven racial/ethnic subgroups (12 years and older) in the United States (see Table 1) and estimated illicit drug use, alcohol abuse, dependence, and tobacco use. Although it is unknown whether South Asians were in the study/survey as part of the AAPI participant group, the findings provided a window into the

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nature and extent of the substance abuse problem within AAPI communities. Overall, AAPIs had a low prevalence of substance use and abuse compared with other populations in the US.[3,22]

A study was conducted in Jersey City, New Jersey to assess the prevalence of alcohol use among Asian Americans. Of the Asian participants (N=216) surveyed, 24% were Asian Indian. Demographic characteristics were reviewed and revealed that 73.2% of the participants had an annual income of 30,000 dollars and 94.4% of all the study participants had a high school education and beyond. Moreover, about 19% of the participants were Hindus and .9% were Sikh. In addition, the study revealed that 75% of the participants surveyed drank alcohol and 40.3% stated their home as the primary location of alcohol use. Approximately 30% stated the primary reasons for alcohol use were to feel good and to socialize. Correlations were not made between respective Asian study participants (Asian Indian, Korean, Chinese, Japanese, Vietnamese, and Filipino) and demographic characteristics and/or pattern of alcohol use. This study represents a major stride concerning South Asians and substance use in the United States.[21]

The studies discussed above signify progress made in research concerning substance abuse in South Asian communities in the US as well as around the world. Nevertheless, additional research focused on AAPI subgroups, namely the South Asians, remains critical for the development of effective prevention and treatment interventions.

Efforts on National and Community Levels

The emergence of organizations dedicated to substance abuse prevention and treatment are on the rise. Organizations are making a concerted effort to heighten awareness about substance abuse among AAPI populations. Existing national organizations like the Substance Abuse and Mental Health Services Administration (SAMHSA), the Center for Substance Abuse Prevention (CSAP), the National Clearinghouse for Alcohol and Drug Information (NCADI), and the National Institute for Drug Abuse (NIDA) have stimulated the discussion regarding the development of culturally-competent prevention and treatment

interventions for substance abuse among AAPI populations. Though these organizations deserve recognition for their prevention and treatment efforts, the need to impart culturally sensitive information and interventions, with reference to specific AAPI subgroups, still exists. More organizations must realize the unique link between substance abuse and AAPI subgroups, such as South Asians.

Organizations across the metropolitan US have adopted interventions to address substance abuse among AAPI populations. The Nav Nirmaan Foundation in New York provides a number of culturally-appropriate treatment and prevention interventions to South Asians with substance abuse problems. At Nav Nirman, 90% to 95% of clients suffer from alcohol dependency. In addition, there is a growing trend of young South Asian professionals between the ages of 20 and 30 with addictions to crack/cocaine and marijuana. At the same time, there are a number of second-generation South Asians seeking help for substance abuse problems. Nav Nirman recognizes the growing South Asian population in the US and regularly engages in outreach activities to treat clients with substance abuse problems. Their services include counseling to address the slew of problems associated with substance abuse, such as domestic violence, education on topics such as drinking and driving, and responding to the individual needs of clients by accompanying clients to the courts, jails, and hospitals.[9,10]

The National Asian Pacific American Families Against Substance Abuse (NAPAFASA) represents a strong coalition of members actively engaged in the dialogue of substance abuse as it affects AAPI subgroups around the country. Dr. Ford Kuramoto, the National Director at NAPAFASA, recognizes the gaps in information regarding AAPI subgroups and strongly supports education and research efforts. NAPAFASA emphasizes the need for comprehensive strategies that address substance abuse and the range of associated problems, such as poverty, mental health, domestic violence, gang violence, and health care, through skill-building workshops, coalition building, and cultural-competency programs. NAPAFASA continues to address substance abuse and advocates prevention, treatment, and research efforts from an angle that reflects the diversity within AAPI subgroups. The group collaborates with a number of organizations nationwide and is involved in various AAPI forums at the local, regional, and national levels.[22]

Dr. Stephen, a Board member of NAPAFASA, understands that substance abuse among South Asians is underreported in the US. His work on substance abuse in the South Asian context includes a book on alcoholism in India and a study on the prevalence of alcohol use among ethnic groups, including the Asian Indian subgroup in Jersey City, New Jersey.[8,20]

The South Asian Network (SAN), located in Artesia, California, networks with a number of organizations nationwide. The organization is involved in grassroots efforts in the Southern California area, which include youth activities and tobacco outreach and education programs. The youth activities involve regular peer gatherings to discuss issues of concern and to develop strategies to address those concerns. Pradeepta Upadhyay, Program Director for SAN, shares that youth have concerns about substance abuse and have claimed that many of their South Asian peers experiment with drugs. Additionally, youth attribute drug use to peer pressure, lack of communication or openness with parents, and difficulty in building an identity (behaving differently inside and outside of home). Currently, SAN is developing a youth support group/youth action group to help understand and cope with issues like substance abuse. SAN has also adopted an outreach effort targeting South Asians in Los Angeles, in order to assess the community's understanding of health risks associated to tobacco use and to eliminate misinformation. Not surprisingly, many South Asians, particularly immigrants, do not recognize that tobacco use, specifically betel-quid/tobacco and bidi usage, are detrimental to health and illegal for minors. SAN's

intervention efforts also include educating and connecting South Asians to the health care system and to social services.[23]

The Asian and Pacific Islander American Health Forum (APIAHF) established the Asian and Pacific Islander Tobacco Education Network (APITEN) in 1990 with the mission to organize individuals and organizations to advocate for tobacco-free Asian American and Pacific Islander communities. APITEN is one of four ethnic networks established in California and has been the leader in the tobacco control movement. APITEN works with multicultural partners as well as mainstream tobacco control programs, health departments, state departments, and voluntary agencies. In addition, APITEN works with AAPI, community-based organizations to address tobacco issues in the community as well as provides capacity-building, technical assistance, and trainings. APITEN strives to counteract the factors that contribute to high smoking levels in AAPI communities by campaigning for tobacco free policies, developing regional coalition activities, organizing youth fellowships and coalitions, and disseminating information.[24]

The Asian American Recovery Services (AARS), based in the San Francisco Bay Area, provides outreach, prevention, treatment, and research services to AAPI communities. The AARS mission is to decrease the incidence (new cases reported per year) and impact of substance abuse in targeted communties. The development and implementation of culturally-appropriate interventions remains a cornerstone at AARS. AARS has developed a number of innovative and successful programs, which include an intensive drug treatment program. The substance abuse treatment program includes residential and outpatient programs for youth and adults. According to Randy Tili, a staffer at AARS, South Asian clients have participated in some treatment programs. AARS clients are pan-ethnic, though many clients are AAPI.[25]

Rupa Ratnam

Conclusion

South Asians represent one of many AAPI subgroups with unique needs regarding substance abuse. Nevertheless, South Asians continue to be categorized under the AAPI umbrella, without consideration of their respective culture and traditions, both of which influence effective treatment and prevention efforts. Researchers must consider the diversity of AAPI populations in their studies. Without accurate prevalence information, health providers and policy-makers cannot understand the depth of the substance abuse problem among South Asians. Consequently, service providers are left with ineffective prevention and treatment interventions due to the absence of information.

Health professionals and the AAPI community must support research endeavors through local, regional, and national funding. Certainly, spiraling health costs that stem from drug abuse provides a strong argument for more prevention research. Community-based organizations that provide substance abuse prevention and treatment interventions must also

be well-informed about unique risk factors linked to South Asian populations in the US. An active response from AAPI community members, researchers, and health professionals remains critical for the prevention of substance abuse. This type of sweeping support can generate interest in research efforts and funding, as well as encourage the adoption of culturally-sensitive prevention and treatment programs for South Asians in the US.

Recommendations

In many AAPI communities, such as the South Asian community, a dialogue around substance abuse needs to be established and ongoing. The recommendations provided below intend to inform service providers and offer them a foundation for developing culturally-sensitive interventions.

- Develop prevention and treatment strategies for AAPI populations by using the six-stage health communication process. Stage one requires planning and strategy selection. Stage two involves selecting messages, materials, and channels. Stage three requires the development of materials and pre-testing. Stage four involves implementation. Stage five requires the assessment of the intervention for efficacy. Stage six includes obtaining feedback to refine the program interventions.[4]

- Consider the following when communicating to a South Asian audience: gender, age, marital issues, geographic origins, health conditions, immigration experience, cultural characteristics, literacy, socioeconomic factors, and generational status.

- Gather information about current perceptions by organizing community forums and speaking to community members about substance abuse in South Asian communities. Employ methods by which information may be collected about substance abuse, including outreach efforts in areas where South Asians congregate, such as cultural or religious events and at temples, mosques, and churches.

- Heighten awareness and knowledge about substance abuse. Develop messages to change community understanding and norms about substance abuse. Use ethnic newspapers and other media efforts to effectively channel messages.

- Involve leaders, such as business leaders, clinicians, teachers, and priests within the community to support and raise interest in the cause. Encourage youth and those interested in becoming mentors to discuss and educate the community on substance abuse.

- Share information with researchers, service providers, health policy-makers, law enforcement, and court officials about South Asian culture and tradition, thereby enhancing awareness and understanding.

- Develop interventions targeting South Asian adolescents, such as peer discussion groups, youth support groups, and other interactive groups (outreach and education). Develop programs that teach skills to resist drugs (social competency, assertiveness, confidence, and self-efficacy), and reinforce appropriate attitudes towards drugs. These programs can be school based.[4,22]

- Develop messages and services with language considerations in mind. Reading material and services may be presented in native languages or in simple terms with illustrations and photographs.

- Understand and define substances, which are indigenous to South Asians, such as betel nut-quid use, paan, bidis, and tobacco.

- Understand South Asian philosophical and religious belief systems and incorporate them into prevention and treatment models.

- Create materials and prevention interventions that emphasize the role of parents and elders, as well as cultural assets within the family.[4]

- Combine Eastern and Western wellness and treatment models to address the needs of new immigrants as well as first- and second-generation South Asians.

- Identify information gaps in quantitative and qualitative research. Promote ethnographic

studies that focus on ethnic subgroups with substance abuse problems.

- Encourage and support funding of research focused on South Asians and substance abuse at the local and regional levels.

- Evaluate prevention and treatment efforts for efficacy. Involve people who can provide insight and feedback related to the development of culturally competent interventions.[4,22]

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Resource Directory

Index

1. **AIDS Services in Asian Communities**
   ASIAC
   1201 Chestnut St., Suite 501
   Philadelphia, PA 19107
   215.563.2424
   215.563.1296 Fax
   Info@asiac.org
   www.asiac.org

2. **American Association of Physicians of Indian Origin**
   AAPI, Public Health Committee
   17W300 22nd St, Suite 300A
   Oakbrook Terrace, IL 60181-4490
   630.530.2277
   630.530.2475 Fax
   info@aapiusa.net
   www.aapiusa.net

3. **American Bangladeshi Friendship Association**
   169-08 Grand Central Parkway
   Jamaica, NY 11432
   718.526.7698
   718.526.1127 Fax

4. **American Cancer Society ACS, South Asian Outreach**
   97-77 Queens Boulevard, Suite 1110
   Rego Park, NY 11374
   718.263.2224
   718.261.0758 Fax
   snayyar@cancer.org
   www.cancer.org

5. **American Islamic Association of Mental Health Professionals**
   3023 West Belmont Avenue, Suite A
   Chicago, IL 60618
   773.267.7031
   708.720.0130 Fax
   abasit97@aol.com

6. **Andolan**
   Organizing South Asian Workers
   PO Box 2087
   Long Island City, NY 11102
   718.390-7264
   718.728-5444 Fax
   andolan_organizing@yahoo.com

7. **Apna Ghar**
   4753 North Broadway Suite 518
   Chicago, IL 60640
   773.334.0173
   773.334.0963 Fax
   info@apnaghar.org
   www.apnaghar.org

8. **Arab-American and Chaldean Council**
   28551 Southfield Road, Suite 204
   Lathrup Village, MI 48076
   248.559.1990
   248.559.9117 Fax

9. **Asian & Pacific Islander American Health Forum**
   APIAHF
   942 Market Street, Suite 200
   San Francisco, CA 94102
   415.954.9988
   415.954.9999 Fax
   hforum@apiahf.org
   www.apiahf.org

10. **Asian & Pacific Islander Coalition on HIV/AIDS, Inc.**
    APICHA
    150 Lafayette Street, 6th Floor
    New York, NY 10013
    212.334.7940
    APICHA@apicha.org
    www.apicha.org

11. **Asian & Pacific Islander Domestic Violence Resource Project**
    DVRP
    PO Box 14268
    Washington, DC 20044
    202.364.4630
    info@dvrp.org
    www.dvrp.org

12. **Asian & Pacific Islander for Reproductive Health**
    APIRH
    2647 International Blvd. Suite 852
    Oakland, CA 94601
    510.434.7900
    510.434.7902 Fax
    info@apirh.org
    www.apirh.org

13. **Asian & Pacific Islander Partnership for Health**
APIPH
3000 Connecticut Ave, NW Suite 110
Washington, DC 20008
202.986.2393
info@apiph.org
www.apiph.org

14. **Asian & Pacific Islander Wellness Center**
730 Polk Street, 4th Floor
San Francisco, CA 94109
415.292.3400
415.292.3404 Fax
info@apiwellness.org
www.apiwellness.org

15. **Asian & Pacific Islander Women's HIV/AIDS National Network**
APIWHANN
C/o Asian & Pacific Islander American Health Forum
942 Market Street, Suite 200
San Francisco, CA 94102
808.689.1569
xuanlan@critpath.org

16. **Asian American Association for Human Services**
1044 Kipling Road
Elizabeth, NJ 47208
973.289.1658
908.289.8495 Fax
astevhen@erols.com

17. **Asian American Drug Abuse Program**
5138 South Crenshaw Boulevard
Los Angeles, CA 90043
323.293.6284
323.295.4075 Fax
www.aadapinc.ws

18. **Asian American Family Counseling Center**
6220 Westpark, Suite 228
Houston, TX 77057
713.339.3688
713.339.3699 Fax
info@aafcc.org
www.aafcc.org

19. **Asian Americans For Community Involvement**
AACI
2400 Moorpark Avenue Suite 300
San Jose, CA 95128
408.975.2730
408.975.2745 Fax
www.aaci.org

20. **Asian American Forum on Substance Abuse**
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West Paterson, NJ 07424
973.785.3085
973.785.3085 Fax
kausalyakb@aol.com

21. **Asian American Legal Defense & Education Fund**
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New York, NY 10013
212.966.5932
212.966.4303 Fax
info@aaldef.org
www.aaldef.org

22. **Asian American Network for Cancer Awareness, Research, and Training**
AANCART
Columbia University
622 W. 168th St., PH 18-201G
New York, NY 10032
212.305.9079
212.305.7846 Fax
nsi3@columbia.edu

23. **Asian American Public Policy Institute**
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650.219.7003
650.988.8010 Fax
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24. **Asian Health Coalition of Illinois**
4554 N. Broadway, Suite 306
Chicago, IL 60640
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773.878.0783 Fax
susan@asianhealth.org
www.asianhealth.org

25. **Asian Human Services, Inc.**
AHS
4753 North Broadway, Suite 700
Chicago, IL 60640
773.728.2235
773.728.4751 Fax
info@asianhumanservices.org
www.asianhumanservices.org

26. **Asian Mental Health Program of Elmhurst Hospital Center**
79-01 Broadway H Building 3rd floor
Elmhurst, NY 11373
718.334.3902
718.334.1277 Fax

27. **Asian Pacific AIDS Intervention Team**
APAIT
605 W. Olympic Blvd., Suite 605,
Los Angeles, CA 90015.
213.553.1830
213.553.1833 Fax
apait1@aol.com
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28. **Asian Pacific American Medical Student Association**
APAMSA National Office
MLK Building, Room 320
Tucson, AZ 85721-0128
520.626.3269
520.621.7574 Fax
mvp_apamsa@hotmail.com
www.apamsa.org

29. **Asian Pacific Islanders for Human Rights**
P.O. Box 461671
Los Angeles, CA 90046
323.860.8775
www.apihr.org

30. **Asian Social Resource Agency**
ASRA
P.O. Box 240 524
Jamaica, NY 11424
917.974.4265
516.908.3821 Fax
asra@asrainc.org
www.asrainc.org

31. **Asian Task Force Against Domestic Violence, Inc.**
P.O. Box 120108
Boston, MA 02112
617.338.2350
617.338.2354 Fax
617.338.2355 Hotline
asiandv@atask.org
www.atask.org

32. **Asian Women United of MN**
AWUM
1954 University Avenue, Suite 4
St. Paul, MN 55104
651.646.2118
651.646.2284 Fax
AWUM@awum.org
www.awum.org

33. **Asian Women's Self-Help Association**
ASHA, Inc.
P.O. Box 34303
West Bethesda, MD 20827
301.369.0134
888.417.2742
ashainc@aol.com
www.umiacs.umd.edu/users/sawweb/sawnet/asha.html

34. **Asians for Miracle Matches: South Asian Task Force**
231 East 3rd Street #G107
Los Angeles, California 90013
888.236.4673
mmistry@ltsc.org
A3M@ltsc.org
http://www.asianmarrow.org/htm/help/taskforce.htm#southasia

35. **Association of Pakistani Physicians in North America**
APPNA
6414 South Cass Avenue
Westmont, IL 60659
630.968.8585
630.968.8677 Fax
appna@appna.org
www.appna.org

36. **Bellevue South Asian Clinic**
SAC
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27th Street & First Avenue
C & D Building, Room 268
New York, NY 10016
212.562.8152
212.562.6328 Fax
hasana@pop.nychhc.org

37. **Center for Asians & Pacific Islanders**
CAPI
3702 East Lake Street, Suite 200
Minneapolis, MN 55406
612.721.0122
612.721.7054 Fax
info@capiusa.org
www.capiusa.org

38. **Center for Immigrant Health**
Division of Primary Care
NYU School of Medicine
550 First Avenue
New York, NY 10016
212.263.8783
212.263.8234 Fax
www.med.nyu.edu/cih

39. **Center for Multicultural & Multilingual Mental Health Services**
4750 North Sheridan Road, Suite 300
Chicago, IL 60640
773.751.4081
773.271.7261 Fax
chomcml@enteract.com

40. **Center for Pacific-Asian Family**
543 North FairFax Avenue Room 108
Los Angeles, CA 90036
213.653.4045
213.653.7913 Fax
www.apanet.org/members/cpaf.html

41. **Chaya**
P.O. Box 12917
Seattle, WA 98111-4917
206.568.7576
206.325.0325
877.92.CHAYA Helpline
206.568.7576 Fax
chaya@oz.net
www.chayaseattle.org

42. **Chhaya CDC**
40-34 Main Street, 2nd Floor
Flushing, NY 11354
718.463.6615
718.463.7006 Fax
info@chhayacdc.org
www.chhayacdc.org

43. **Coalition for Asian American Children & Families**
CACF
120 Wall Street, 3rd Floor
New York, NY 10005
212.809.4675
212.344.5636 Fax
cacf@cacf.org
www.cacf.org

44. **Counselors Helping Asian Indians, Inc.**
CHAI
4517 Redleaf Court
Ellicott City, MD 21043
410.461.1634
raziachai@hotmail.com
www.geocities.com/raziachai/

45. **Cross-Cultural Counseling Center**
International Institute of New Jersey
880 Bergen Ave.
Jersey City, NJ 07306
201.653.3888 ext. 12
201.963.0252

46. **DAYA, Inc.**
P.O. Box 571774
Houston, TX 77257
713.914.1333
info@dayahouston.org
www.dayahouston.org

47. **East Coast Asian & Pacific Islander AIDS Network**
ECAAN
C/o APICHA, Inc.
150 Lafayette Street, Floor 6
New York, NY 10013
212.334.7940
212.334.7956 Fax
ahndo@apicha.org
ecaan-subscribe@yahoogroups.com
www.ektaonline.org

48. **EKTA**
1050 Fell Street #6
San Francisco, CA 94117
www.ektaonline.org

49. **Flushing Hospital Medical Center**
Asian Behavioral Center
Queens, NY
718.670.5562
718.670.4571 Fax

50. **Indo-American Psychiatric Services**
Flushing Hospital Medical Center
146-01 45th Avenue, Suite 310
Flushing, NY 11355
718.670.8936
718.670.8936 Fax

51. **Indo-American Community Service Center**
3065 Democracy Way
Santa Clara, CA 95054
408.748.1771
408.748.1311 Fax
icsc@yahoo.com
www.indo-american.org

52. **International Institute of New Jersey**
Immigration Law Center
880 Bergen Avenue
Jersey City, NJ 07306
201.653.3888, ext. 20
201.963.0252 Fax
law@iinj.org
www.iinj.org

53. **International Institute of New Jersey**
Cross-Cultural Counseling Center
880 Bergen Avenue
Jersey City, NJ 07306
201.653.3888, ext. 12
201.963.0252 Fax
institute@iinj.org
www.iinj.org

54. **Islamic Center of Long Island**
Committee on Domestic Harmony
835 Brush Hollow Road
Westbury, NY 11590
516.942.2081
516.333.3495
516.333.7321 Fax
ruksanaa@aol.com
durazi7@hotmail.com

55. **Kiran**
P.O. Box 3513
Chapel Hill, NC 27515-3513
919.865.4006
866.547.2646 Toll-Free Crisis Line
kiraninc@hotmail.com
www.kiraninc.org

56. **Maitri**
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Sunnyvale, CA 94086
408.730.4049
888.8.MAITRI Toll-Free Hotline
408.730.4049 Fax
maitri@maitri.org
www.maitri.org

57. **Manavi, Inc.**
P.O. Box 3103
New Brunswick, NJ 08903-3103
732.435.1414
732.435.1411 Fax
manavi@worldnet.att.net
www.manavi.org

58. **Massachusetts Asian American AIDS Prevention Project**
59 Temple Place, Suite 300
Boston, MA 02111
617.426.6755
617.426.6756
jacobsmithyang@maapp.org

59. **Mental Health Assistance for South Asian Women**
Cambridge Hospital Department of Psychiatry
26 Central St.
Somerville, MA 02143
617.591.6420
617.591.6029 Fax
ptummala@hms.harvard.edu

60. **Michigan Asian Indian Family Services**
MAIFS
19111 W. Ten Mile Road, Suite 122
Southfield, MI 48075
248.351.0077
888.664.8624 Crisis Line
info@maifs.org
www.maifs.org

61. **Narika**
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Berkeley, CA 94712
510.540.0754
800.215.7308 Helpline
510.540.0201 Fax
info@narika.org
www.narika.org

62. **National Asian Pacific American Families Against Substance Abuse**
NAPAFASA
340 East 2nd Street, Suite 409
Los Angeles, CA 90012
213.625.5795
213.625.5796 Fax
webmaster@napafasa.org
www.napafasa.org

63. **National Asian Pacific American Women's Forum**
NAPAWF
PO Box 66124
Washington, DC 20035-6124
info@napawf.org
www.napawf.org

64. **National Asian Women's Health Organization**
NAWHO
250 Montgomery Street, Suite 900
San Francisco, CA 94104
415.989.9747
415.989.9758 Fax
nawho@nawho.org
www.nawho.org

65. **National Indo-American Association for Senior Citizens**
NIAASC
7 Roberta Avenue
Farmingville, NY 11738
866.664.2272 Toll-Free
niaasc@aol.com
www.niaasc.org

66. **National Minority AIDS Council**
1931 13th St., NW
Washington, DC 20009
202.483.6622
202-483-1135 Fax
info@nmac.org
www.nmac.org

67. **Nav Nirmaan Foundation**
87-08 Justice Avenue #CU
Elmhurst, NY 11373
718.478.4588
212.732.5230 Hotline
718.476.5959 Fax
navnirmaan@yahoo.com
www.homestead.com/navnirmaan

68. **New York Asian Women's Center**
NYAWC
39 Bowery, PMB 375
New York, NY 10002
212.732.5230
888.888.7702 Hotline
212.587.5731 Fax
contact@nyawc.org
www.nyawc.org

69. **New York Coalition for Asian American Mental Health**
136 Waverly Place, #7A
New York, NY 10014
718.221.7316
info@asianmentalhealth.org
www.asianmentalhealth.org

70. **New York University Psychoanalytic Institute and Psychoanalytic Association of New York**
New York University Medical Center
400 East 34th Street
New York, NY 10016
212.263.6243

71. **nyu_psa_institute@compuserve.com**
http://www.psa.med.nyu.edu/
NISWA
P.O. Box 1403
Lomita, California 90717
310.782.2482

72. **North American Medical Alumni**
NAMA
Branch of Association of Pakistani Physicians in North America (APPNA)
218-76 Hartland Avenue
Bayside, NY 11364
718.464.4296
718.465.9792 Fax
namapak@aol.com
http://members.aol.com/namapak/namapak.html

73. **Northern Queens Health Coalition**
NQHC
39-01 Main Street Suite 611
Flushing, NY 11354
718.661.9313
718.661.9319 Fax
nqhc@aol.com

74. **Pragati, Inc.**
119-45 Union Turnpike, Lower Level
Forest Hills, NY 11375
718.459.0914
718.459.2971 Fax

75. **Primary Care Medicine**
NYU School of Medicine
550 First Ave.
NY, NY 10016
212.683.7446
212.263.8234 Fax
ask45@aol.com

76. **Pride of Judea Community Services**
243-02 Northern Blvd.
Douglaston, NY 11362
718.423.6200
718.423.9762 Fax
cpearson@jbfcs.org
www.jbfcs.org

77. **Queens Child Guidance Center**
Asian Outreach Program
87-08 Justice Avenue, Suite C7
Elmhurst, NY 11373
718.899.9810, ext. 211
718.899.9699 Fax
adias11552@yahoo.com
www.qcgc.org

78. **Raksha, Inc.**
P.O. Box 12337
Atlanta, Georgia 30355
404.876.0670
404.842.0725 Helpline
404.876.4525 Fax
raksha@mindspring.com
www.raksha.org

79. **Richmond Area Multi-Services, Inc.**
RAMS
3626 Balboa Street
San Francisco, CA 94121
415.668.5955
415.668.0246 Fax
ramsinc@aol.com
www.members.aol.com/ramsinc

80. **Safe Horizon**
Immigrant Service
2 Lafayette Street
New York, NY 10007
212.577.7700
212.577.7777 Crime Victim Hotline
800.621.HOPE (4673) Domestic Violence Hotline
212.385.0331 Fax
www.safehorizon.org

81. **Saheli**
P.O. Box 3665
1806 S. 5th Street
Austin, TX 78764-3665
512.703.8745
saheli@usa.net
www.main.org/saheli

82. **SAKHI for South Asian Women**
Domestic Violence Program
P.O. Box 20208
Greeley Square Station
New York, NY 10001-0006
212.714.9153
212.868.6741 Helpline
212.564.8745 Fax
sakhiny@aol.com
www.sakhi.com

83. **SAKHI for South Asian Women**
Women's Health Initiative
P.O. Box 20208
Greeley Square Station
New York, NY 10001-0006
212.714.9153
212.868.6741 Helpline
212.564.8745 Fax
sakhiwhi@yahoo.com
www.sakhi.com

84. **Samhati: Bangladesh Women's Organization**
6108 Robinwood Road
Bethesda, Md 20817
301.229.6597
www.umiacs.umd.edu/users/sawweb/sawnet/samhati.html

85. **Senior Citizen Program, Inc.**
4059 Keswick Dr
Atlanta, GA 30339
770.333.9781
770.431.9353 Fax
Rrazd01@emory.edu

86. **Service and Education for Women Against Abuse**
SEWAA
PO Box 43622
Philadelphia, PA 19104
215.62.SEWAA (73922)

87. **SNEHA, Inc.**
PO Box 271650
West Hartford, CT 06127-1650
800.58.SNEHA (76342)
860.521.1562 Fax
sneha@sneha.org
www.sneha.org

88. **South Asia Against AIDS**
SAAAIDS
303 Park Avenue South Suite 180
New York, NY 10010
212.332-9148
Asha@saaaids.org
www.saaaids.org

89. **South Asian Council for Social Services**
SACSS
86-42 Midland Parkway
Jamaica Estates, NY 11432
718.523.7668
sacharya@netzero.net
www.sacss-na.org

90. **South Asian Helpline and Referral Agency**
SAHARA
18520 1/2 Pioneer Boulevard, Suite 204
Artesia, CA, 90701
888.724.2722/562.402.4132
562.402.6093 Fax
sahara_2@hotf.com
www.charityfocus.org/host/sahara

91. **South Asian Lesbian and Gay Association (SALGA)**
P.O. Box 1491, Old Chelsea Station
New York, NY 10113
212.358.5132
salganyc@hotmail.com
salga_women@hotmail.com
www.salganyc.org

92. **South Asian Marrow Association of Recruiters**
SAMAR
55-13 96th Street
Rego Park, NY 11368
718.592.0821
samarinfo@aol.com
www.samarinfo.org

93. **South Asian Mental Health Awareness in New Jersey**
SAMHAJ
1562 Route 130
North Brunswick, NJ 08902
732.940.0991
732.940.0355
naminj@optonline.net
www.naminj.org

94. **South Asian Network**
SAN
18000 Pioneer Boulevard, Suite 101
Artesia, California 90701
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800.403.0487
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saninfo@southasiannetwork.org
www.southasiannetwork.org

95. **South Asian Psychoanalytic Forum of PANY**
151 East 80th Street
NY, NY 10021
212.249.6029

96. **South Asian Public Health Association**
SAPHA
11200 Lockwood Drive, # 1207
Silver Spring, MD 20901
520.844.1254 Fax
www.sapha.net
info@sapha.net

97. **South Asian Public Health Forum**
saphf@yahoo.com
southasia-subscribe@yahoogroups.com
jawad@alumni.washington.edu
www.geocities.com/saphf

98. **South Asian Women for Action**
20 Wheeler Street, #3
Somerville, MA 02145
617.666.5080
sawa@way.net
www.way.net/sawa/

99. **South Asian Women's Community Centre**
SAWCC
1035 Rachel Street, 3rd Floor
Montreal, Quebec H2J 2J5
514.528.8812
514.528.0896 Fax
sawcc@can.org

100. **South Asian Women's Empowerment and Resource Alliance**
SAWERA
P.O. Box 91242
Portland, OR 97291-0242
503.641.2425
503.778.7386 Helpline
sawera@sawera.org
www.sawera.org

101. **South Asian Women's Health Project**
Stanford University
Palo Alto, California
chayab@leland.stanford.edu
www.nonprofitspace.org/SAWomensHealthProject

102. **South Asian Women's Network**
SAWNET
sawweb@umiacs.umd.edu
http://www.sawnet.org

103. **South Asian Youth Action**
SAYA!
54-05 Seabury Street
Elmhurst, NY 11373
718.651.3484
718.651.3480
ed@saya.org
www.saya.org

104. **Survivors International**
447 Sutter St. Suite 811
San Francisco, CA 94108
415.765.6999
415.765.6995 Fax
survivorsintl@msn.com

105. **Trikone**
P.O. Box 21354
San Jose, CA 95151-1354
415.789.7322
408.274.2733 Fax
trikone-web@trikone.org
www.trikone.org

106. **Trikone – Tejas**
University of Texas at Austin
PO Box 4589
Austin, TX 78765-4589
512.560.9017
trikone_tejas@yahoo.com
www.main.org/trikonetejas

107. **Union of Pan Asian Communities**
UPAC
1031 25th Street
San Diego, California 92102
619.232.6454
619.235.9002 Fax
info@upacsd.com
www.upacsd.com

108. **United Hindu Cultural Council**
Senior Center for Retired Men and Women
118-09 Sutter Avenue
South Ozone Park, NY 11420
718.323.8900
718.323.6770 Fax

109. United Sikhs in Service of America
95-14 120th Street
Richmond Hill, NY 11419
516.996.5039
815.366.9055 Fax
contact@unitedsikhs.org
www.unitedsikhs.org

110. Victims Services/Solace
74-09 37th Ave, Rm 412
Jackson Heights, NY 11372
718.899.1233 ext.101
718.457.6071 Fax
eduff@victimservices.org

111. White House Initiative on Asian Americans & Pacific Islanders
5600 Fishers Lane
Rockville, MD 20857
301.443.2492
301.443.0259 Fax
aapi@hrsa.gov
www.aapi.gov

Please send updates or additions to this Resource Directory to: info@sapha.net

About the South Asian Public Health Association

The purpose of the South Asian Public Health Association (SAPHA) is to promote the health and well-being of South Asian communities and the advancement of public health professionals.

SAPHA seeks to:

- Provide a forum for mentorship, dialogue and resource-sharing among public health professionals working with South Asian communities
- Advance the leadership, networking and professional development of South Asian public health professionals
- Raise awareness of health risks and encourage healthy behavior among South Asians
- Increase awareness of the value of culturally-appropriate services for South Asians in the United States
- Encourage and support research and academic communities interested in South Asian health issues

SAPHA Contact Information

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